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MILITARY AFFAIRS

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28 July 1981

USSR REPORT  
MILITARY AFFAIRS

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## MILITARY SCIENCE, THEORY, STRATEGY

### SURPRISE FACTOR IN WARFARE DISCUSSED

Moscow SOVIET MILITARY REVIEW in English No 3, Mar 81 pp 22-23

[Article by Col M. Surovtsev: "A Factor Contributing to Victory"]

[Text] The essence of one of the principles of the art of war can be expressed briefly but fully: "Surprise is the key to victory." But not everyone can use this key properly. Only the commander who can foresee the development of events, skilfully uses his forces and weapons, shows initiative, seeks to take advantage of favourable conditions and adopts nonstereotyped decisions can expect the actions of his subunits to take the enemy by surprise.

#### A RESULT OF CREATIVE WORK

A motorized infantry regiment was fighting a defensive "battle." The "enemy" had managed to penetrate at the limiting point between two battalions and was trying to exploit his success. Under these conditions the tank battalion commanded by Lieutenant-Colonel Yu. Mashin, which was holding defences in the regiment's second echelon, was assigned the mission to counterattack the flank of the penetrated "enemy," defeat him and restore the situation.

In spite of the measures taken by the command to regain the initiative, the situation remained strained. The "enemy" intensified his pressure and committed reserves in the area where success had been obtained. Besides, he had spotted the battalion's advance to the counterattack position and opened artillery fire against it.

Having assessed the situation Lieutenant-Colonel Mashin ordered one company to continue the advance to the prescribed line, while the main body changed its route and

reached the "enemy's" rear through the defence area of the neighbouring battalion. Launching surprise attacks against the "enemy" rear and flank the tankmen routed him and restored the situation.

This example demonstrates the commander's resourcefulness, his ability to exercise flexible control in active defence and to carry out an unexpected manoeuvre to achieve surprise.

In the hands of a skillful commander surprise is a powerful weapon. During the Great Patriotic War the Soviet forces enriched the art of war with numerous examples of actions which threw the Hitlerite Command into confusion.

For instance, on July 13, 1943 Field Marshal Manstein, Commander of Army Group South, stated that he had crushed the Red Army forces covering Kursk in the south and that they were no longer able to advance or even to assume the defensive. Being convinced of this, Manstein sent the tank divisions operating in that area to the Donbass, where the forces of the South-Western and Southern fronts assumed the offensive on July 17. But when the Soviet forces struck in the vicinity of Belgorod and on the very first day crushed the Nazi defences, the field marshal had to change his tune and began sending panic messages to the Hitlerite GHQ that the Russians had tremendously superior forces.

Experience testifies that surprise cannot arise spontaneously. It is a result of creative activities of commanders and staffs, which can be subdivided into three stages: preliminary planning, careful preparation and timely execution of planned actions.

Such a subdivision implies in the first place understanding of the general and particular situation, knowledge of enemy tactics and endeavour to discover his intention, on the basis of which it becomes possible to foresee the development of events and to organise combat so as to stun the enemy by unexpected use of particular tactical methods at the right time.

When, for instance, a group of scouts advances undetected, under cover of darkness and favourable terrain conditions, to the enemy positions and catches a prisoner, it accomplishes the assigned mission by surprise. Combat engineers are guided by the same striving when laying and camouflaging mines on the most likely directions of enemy advance so that the enemy tanks and infantry run against them unexpectedly. Gunners also count on surprise when opening fire on concentrations of men and material.

#### IN THE OFFENSIVE

There is a great variety of ways and means for achieving surprise in the offensive. The attacker normally has the advantage because he can choose the method, time and place for delivering a blow. It is easier for him to mislead the enemy as to the real concentration of the main forces and the battle formation. By skillfully combining air and ground attacks, delivering massed fire on the most impor-



tant enemy installations and lines, striving to disorganise the enemy antitank defence system he can achieve success in a relatively short time. The more dynamic and fluid the battle is, the greater the demands upon the commander's mobility and flexibility, his capacity to make use of any minor mistake, the slightest delay or hesitation on the part of the enemy to deal an immediate blow at his weak point.

Of prime importance is the ability to take a creative approach to the solution of the task assigned. Thus, if the enemy expects a frontal attack one should be launched against his flank, if the enemy moves forward his reserves he must be hindered or delayed when they negotiate natural and artificial obstacles or he must be forced to deploy them in an area where it is difficult to make full use of fire and manoeuvre capabilities of weapons and equipment.

On lines where the fighting is in separate centres of resistance, conditions are favourable for using gaps and breaches in the defenders' battle formation. Such manoeuvring actions in the enemy rear create the necessary prerequisites for capturing important lines and installations and disrupting the control system and logistics.

Attacks from different directions are especially effective when fighting tactical landing forces, because they make the enemy disperse his forces, thus favouring his piecemeal rout.

The high capabilities of the modern equipment permit high-speed manoeuvres. In fluid battles, high speed of advance and resoluteness are at times more important than numerical superiority. Therefore, there is a direct connection between surprise and speed of advance. The higher the speed the swifter the attack and the better the prospects of taking the enemy unawares. A high speed of advance increases the element of surprise and an attack that has caused confusion and hesitation in the enemy ranks should be backed by a daring manoeuvre and accurate fire.

## IN DEFENCE

The art of war knows numerous examples of a defender reducing all the efforts of the attacker to nil by countering with surprise actions and various tactical enigmas. The high characteristics of modern weapons have increased the possibilities for surprise. Their employment requires first of all most efficient use of defence strong points, such as an organised fire and obstacle system, thorough camouflage, engineer equipment of shelters, laying of ambushes and organisation of killing grounds and simulated areas. Coupled with favourable terrain conditions they help mislead the enemy as to the actual layout of the forward edge, battle formation and location of fire weapons, while skilful use at the decisive time and place of fire-support helicopters, artillery, tanks, infantry fighting vehicles and mobile obstacle detachments makes it possible to inflict tangible losses on the enemy and frustrate his attack, and compels him to abandon his previous plan.

Though in defence it is impossible to be strong everywhere, this fact is far from being an indication of weakness. A skillfully organised battle formation, suitable selection of the area where the main efforts are to be concentrated, staunchness and persistence, secret movement of second echelons and reserves to threatened areas, surprise counterattacks launched from different directions and when the enemy least of all expects them provide the possibility to regain the initiative and change the course of the battle.

Surprise actions always have a strong psychological effect. A sharp and unfavourable change in the situation paralyses for some time will to resist, shatters morale and sometimes even raises panic in the enemy ranks. On the other hand he who has achieved surprise experiences elation and a surge of energy.

### PREREQUISITES OF SUCCESS

Surprise by itself does not guarantee victory, it only creates prerequisites which must be skillfully used to achieve the enemy's complete rout. This is because advantages arising from surprise actions are transient. They exist as long as the enemy remains confused. That is why it is very important not to reduce activity but to exploit the success achieved and thus prevent the enemy from restoring his organisation, teamwork and control system.

Knowledge of the ways and means of achieving surprise in specific conditions makes it possible to mislead the enemy. The commander's professional skill plays the leading role here, because achievement of surprise depends on his ability to adopt the most suitable decision, on the readiness of the HQ personnel to organise and secure its execution in time, on the ability of the servicemen to fight in complicated conditions at any time of the year or day.

Secrecy is not the least of the factors. By secrecy is meant a complex of measures aimed at depriving the enemy of the possibility to obtain the necessary information. These measures include limitation of the number of participants in planning combat operations, strict observance of troop control security measures and sound camouflage.

Military cunning also contributes to achieving success. For example, demonstrations carried out by limited forces on a secondary line of advance, organisation there of simulated concentration areas and activities make it possible to deceive the enemy and create favourable conditions for delivering blows in areas where he least of all expects them.

Misinformation is also a necessary measure. It consists in using different means and methods to deliberately convey to the enemy false information on the composition and character of impending operations of friendly forces.

Thus we may say that the main means of achieving surprise are the commander's creative activity in organising and conducting combat, the use of non-stereotyped actions, and also courage and resoluteness based on a deep knowledge of the laws of modern warfare.



# MINISTRY OF DEFENSE AND GENERAL STAFF

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## MAN AND MILITARY EQUIPMENT RELATIONSHIP DISCUSSED

Review 6012; MILITARY REVIEW in English No 12, Dec 79 pp 11-12

[Article by Mr] Gen A. Nizovidov, D. Sc. (Philosophy), professor, chief of the Chair of Marxist-Leninist Philosophy, Lenin Military-Political Academy: "Man and Equipment"]

[Text]

At the stable and changing character of the described "man-equipment" relationship has always manifested that with the invention of new weapons. The advent of fundamentally new armaments has necessarily entailed changes in the methods and forms of warfare and entailed new requirements to equipment.

In different periods of history military demands of the war exposed varying approaches to the man-equipment equipment interaction. It is worth noting that periods of marked scientific and technological progress produced theories about the omnipotence of technical means and facilities.

Even today such misconceptions in the approach to the man-equipment relationship sometimes occur. Some contemporary military theorists believe that man improves equipment as an other force. As a result, they divorce equipment as a product and means of activity from man. They maintain that weapons of mass destruction, automatic control systems used in warfare are capable of replacing man in armed combat. In keeping with these views, all means and devices lead to so-called "push-button warfare."

Bourgeois military ideologues have displayed lack of consistency and a nominalistic approach to the approach of the components making up the man-military equipment system. These inconsistencies and nominalism reflect the contradictions that actually exist in capitalist society and hinder their approach to various phenomena and processes, operations which are by no means objective.

The Marxist-Leninist principle of the unity of the socio-political and military-technical analysis of the man-

equipment relationship opposes the internally contradictory bourgeois concepts. A comprehensive examination of the man-equipment system from the standpoint of Marxist-Leninist theory makes it possible to provide a scientific substantiation and to arrive at logical, flexible and at the same time concrete conclusions.

Comrade Leonid Brezhnev remarked:

"Though an army may possess a high level of equipment, the man who has mastered this equipment to perfection continues to be the cardinal and decisive force in a war. This is particularly important today, in the age of nuclear missiles, when the fate of war shall be decided by men who have mastered weapons and combat equipment, men morally and physically trained, men unflinchingly devoted to their homeland, Party and people."

War is a complicated social phenomenon. It is the continuation of politics by forceful means. War is waged not by weapons and other military equipment, but by men provided with them. A man is a member of a definite class. He seeks to achieve definite aims in an armed conflict. Equipment serves the different classes equally and is used for the attainment of diametrically opposite goals.

Even the most advanced equipment will not emerge towar if it is not handled and serviced by competent men. History knows many cases when an outworn military leader led his well-equipped troops to defeat by the shortest route. There have also been instances when people, fighting a just war, compensated for inadequate technical equipment with fortitude. This was graphically confirmed by the victory the young Red Army scored over the well-equipped and adequately



armed forces of the internal counter-revolution and foreign interventionists during the Civil War of 1919-1935. The newly formed armed forces of Cuba won independence in 1961, of Vietnam in 1975 and of Angola in 1976.

Man plays a decisive role in relation to military equipment. This is determined by the fact that the fighter's effort is creative, and man's effort has always been and continues to be man's privilege. Though a machine may be superior to man in the performance of separate functions, it is incapable of independent and qualitative analysis, of consequences and creative effort. Man alone is able simultaneously and independently to analyze information, adopt decisions, formulate a programme for the machine, and control and direct the course of its functioning.

Recognition of man's decisive role in an armed conflict gives the main determination of this role. Though man differs widely from technical equipment, the two are inseparable. The organization of the army and methods of warfare depend on the perfected man-military equipment relationship.

Modern armies are equipped with the latest armaments created for direct use of automated control systems. This has brought about far-reaching changes in the man-military equipment connection. It has become more complex. It depends on a wide range of factors. These circumstances have changed the character of military labour. They have raised the standard of requirements to the competence of servicemen in the military and technical spheres, to their moral and combat qualities and style of thinking.

The functions between man and military equipment are distributed in a new way too. Military labour is now backed by the latest technical facilities such as sophisticated instruments and mechanisms and a wide range of automatic and automated systems. As a result, military equipment increasingly performs technological, transport, energy supply, measuring, computing and other operations. Automated equipment is being used more and more widely in control processes.

The tremendous speeds developed by aircraft, speed greatly exceeding the velocity of sound, make it impossible for the pilot to sight the enemy on time, to take aim and execute a large volume of calculations in a very short duration. The same is true of automatic remote-measure and of the organization of the air defence system. Man's limited physical and psychological capabilities are supplemented by automatic devices which are superior to man in performance of computing operations, accumulation and storage of vast quantities of information.

The changes that have occurred in the man-military equipment system have enhanced the personal responsibility of every serviceman in executing his duties. The officer now bears a far greater responsibility for the fulfillment of plans for combat training, for the organization of field training and for performance of alert duty.

The importance of the principle of saving time in military work has increased immediately. Time being a value of a special kind, its loss is irretrievable. The time now saved in the deployment of troops or in the launching of missiles is calculated in minutes and seconds, and no longer in days or hours. Time saving is a vital indicator of efficiency in scientific organization of military labour. For instance, it may be expressed in bringing a piece of equipment into standby condition in less time than is normally required by the accepted time standards, in scoring a hit on the target with the first round (missile), mastering a military specialty in less time, etc. It is man that solves these questions. The solution depends on his ability quickly to acquire solid skills in the handling of weapons and other combat equipment under various conditions.

Broad "technization" of military labour calls for a high level of competence of man in the military and technical spheres. This problem can be solved only if the entire population of the country consistently raises its educational, cultural and technical level in general, and the personnel of the armed forces in particular.

In the past many military theorists, including military psychologists, attached special importance (and with good reason) to the motor activity of the soldier and to the concrete sensory and image perception of the commander. The analogy between the commander and pilot sprung up from this. As a rule, the commander directly observed the battlefield, entering into direct contact with the enemy and figuratively perceiving the dynamics of the events.

The ability of direct image perception of the situation still plays an important role. However, new technical facilities introduce not only the commander, but also the soldier into the sphere of abstract categories. There are now more and more elements in military labour that hardly has logical thinking. The increased influx of information calls for profound analysis, employment of mathematical statistics with due account of enemy disposition, and of his attempts to disorganize the plans with the help of modern technical equipment.

Today the man-military equipment interconnection has presented far higher requirements to the moral and combat qualities of the man. Progress in military equipment, mechanization and automation of military work, far from lessening the moral and psychological strain



experienced by man, increases it. Employment of sophisticated machines and instruments and the varied character of the responsible functions performed by man compel him to apply tremendous concentration and impose a terrific strain on him. Though work with instruments appears to be monotonous, the man must concentrate his attention to a maximum degree and must be ready to adopt a decision of great responsibility at any moment. To master modern equipment a man must exhibit will power and persistence.

Organization and discipline are a concentrated expression of high moral-political qualities.

Lenin drew the conclusion that in modern wars victories went to the side that had superior equipment, organization, discipline and better machines. Today this contention has fully retained its validity. More than that, its importance has increased. Moral strength can grow over into a material force only if there is excellent organization. The more elaborate the equipment the greater the role played by the well organized effective cooperation of all the elements of the army, and the more dangerous will be violations of discipline and regulation order.

A Marxist-Leninist understanding of the man-military equipment relationship in warfare helps correctly establish the course to be pursued by military personnel, formulate the strategy of military development, and the principles and methods of training and education of the personnel.

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## ARMED FORCES

### GARRISON, GUARD DUTY REGULATIONS

Moscow SOVIET MILITARY REVIEW in English No 12, Dec 79 pp 36-37

[Article by Col L. Pavlov: "Garrison and Guard Duty Regulations"]

[Text]

The existing Garrison and Guard Duty Regulations were approved by the Decree of the Presidium of the USSR Supreme Soviet of July 30, 1975. The Regulations lay down the organisation and procedure of performing garrison and guard duties. They also formulate the rights and duties of garrison officials and servicemen performing these duties. The Regulations are a guide for all military units, military educational institutions, staffs, administrations and establishments of the USSR Armed Forces.

The Regulations read in part: "The purpose of garrison duty is to ensure maintenance of high military discipline among the garrison personnel and the necessary conditions for the troops' everyday life and training, and for measures to be carried out within the garrison with troop participation."

Performing garrison and guard duties is obligatory for military units of all fighting services in the Armed Forces. The sequence of performing these duties by military units is established by the garrison commander. As a rule, a duty subunit is detailed by the unit detaching the garrison guard. This subunit is stationed within the unit's lines to be ready immediately to execute the tasks assigned by the garrison commander or commandant. It is detailed to reinforce the guards or take emergency steps in case of fire, natural calamities or the like.

The garrison commander, his deputy for political affairs and the commandant are appointed in each garrison on the order of the commander of the military district. The garrison commander is the direct superior for all unit and subunit commanders of the garrison and for each individual serviceman. All garrison officials (the commander, his deputy for political affairs, chiefs of sections, except the commandant and the chief of the garrison guardhouse) perform their garrison duties parallel with their main occupations.

To maintain order and strict military discipline among the servicemen in the streets and other public places, of railway stations and terminals, sea and airports and inhabited localities adjoining the garrison, each garrison organises patrolling. Patrols are detailed by military units and military educational establishments.

The patrolling route and instructions to patrols are worked out by the commandant and approved by the garrison commander.

The Regulations stipulate that a guard of honour be appointed for doing military honours and for meeting and seeing off representatives of foreign states. It also sets forth in details the procedure of other ceremonies and troop parades.

Performing garrison service in the Soviet Armed Forces is identified with fulfilling a combat mission. Therefore, offenders bear both disciplinary and criminal responsibility.

Supervision of garrison duty within the military district is effected by the district commander, in the garrison by the garrison commander, and in the unit (on ship) by the unit (ship) commanding officer. In garrisons with naval units prevailing, the control of guard duty is exercised by the fleet (flotilla) commander.

The organisation of guard duty includes: making a list of objectives to be guarded, determining the composition of guards and indicating military units detailing them; drawing up guard schedule and duty roster, layout of posts, list of posts of the guard and instructions to guard commanders; outfitting guard rooms and posts, providing lighting, communication and signalling.

To be protected by guards are unit colours, military and state objectives and persons kept under arrest at guardhouses and in correctional battalions. The guards may be permanent or temporary. Permanent guards

are established by long-term schedules. Temporary guards are not included into the schedules; they are detailed by the order of the garrison (camp assembly) commander or unit (ship) commanding officer as the necessity arises.

Sentries guard objectives by observation from towers and by patrolling. In the latter case a sector 2 km long in the day time and up to 1 km long by night is assigned to be guarded and defended, depending on the fencing of the objective and the terrain.

Reserve groups which act depending on the situation on the battle alarm signal are made up in each guard out of alert and resting shifts. These groups are provided with transport, if need be.

"The person of the guard is inviolable," the Regulations read. "His inviolability embraces:

- special protection by law of his rights and personal dignity;

- strict subordination to specified persons — guard commander, assistant guard commander and the sergeant of the relief;

- everyone's duty unflinchingly to comply with the sentry's instructions defined by his service functions;

- sentry's right to use arms."

Adequate conditions are necessarily provided for the sentry to enable him to perform his duties. Guarded objectives are generally protected by internal and external fencing trenches, night lighting, signalling, roofing, etc. Normally, guards are relieved every two hours. At temperatures below  $-20^{\circ}\text{C}$  or above  $+30^{\circ}\text{C}$  the relief is effected every hour. Quiet and order must be maintained in the guard room so as not to interfere with the relieving shift's rest. For instance, it is prohibited to sing or play musical instruments. The guards, however, may listen to the radio through earphones, read, write and play chess or checkers.

According to the Regulations the guard room is composed of the following adjacent spaces: a room for the resting shift, for the guard commander and for his assistant. In addition, provision is made for food heating equipment, washing, smoking, arms cleaning,

footwear drying and cleansing rooms, a toilet and a fuel storeroom. An area to turn up the guard and to load and unload weapons is organized in front of the guard room.

It goes without saying that vigilantly performing guard duty is inconceivable without thorough training and instruction of the guards. This work is done personally by the company (battery) commander or by the battalion commander if the guard is detailed by the battalion. Training of the guard personnel is conducted with due account for the peculiarities of each objective to be protected, in specially equipped locations. Three days prior to entering on guard duty, unit chiefs of staffs supply commanders of subunits detailing the guards with the layouts of posts, lists of posts of the guard and instructions to guard commanders for the personnel to study, after which these documents are returned to the unit's headquarters.

The newly appointed guards start performing the service after the guard mounting parade to check their readiness. Every serviceman of the Soviet Armed Forces must assist persons performing garrison and guard duties.

Party-political work during guard duty is organized and carried out with due consideration for the specific tasks and peculiarities of defending and guarding various objectives. Primary attention is given to enhancing the personnel's vigilance, explaining the requirements of the regulations and to the personal responsibility of each serviceman for the strict execution of his duties while performing guard duty. Of great importance is propaganda of combat traditions and feats performed by servicemen on guard duty.

Such are some of the clauses of the Garrison and Guard Duty Regulations of the Armed Forces of the USSR. Their strict execution by Soviet servicemen, their high consciousness, constant vigilance, competent handling of weapons and equipment, mutual assistance and firm discipline enable them to solve the tasks of guarding and defending military and state objectives.

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## ARMED FORCES

### COMBAT TRAINING METHODS EXPLAINED

Moscow SOVIET MILITARY REVIEW in English No 3, Mar 81 pp 15-17

[Article by Col A. Akinov: "Methods and Forms of Training"]

[Text] Military personnel develop combat skills for modern battle in the process of tactical and special training. This article is devoted to the methods and forms of combat training.

### METHODS

A training method is a set of techniques for delivering or acquiring the military knowledge and skills necessary for the practical activities of servicemen, and for achieving teamwork between military units and staffs. Depending on the category of trainees, their training standard, the subject and the training objectives, different combinations of the following methods are used: oral delivery, varieties of which are explanation, narration, lectures, talks, demonstration exercise, practice, individual study.

**Explanation** consists in delivering the subject matter through discourse and proof. It is used to clarify articles of regulations and manuals, to substantiate solutions and analyse the actions of trainees. Explanation is often combined with demonstration of some combat technique or action, weapons system or combat materiel or various visual aids.

**Narration** is delivery of the subject matter to give facts and features of life, describe events and their outcome. It is combined with explanation and demonstration of weapons, materiel and visual aids.

A **lecture** is a developed elucidation of a number of connected problems concerning a definite topic combined with demonstration of appropriate visual aids (maps, diagrams, slides, etc.). A lecture makes it possible to explain the most complex notions, theoretical concepts, and laws per-

taining to the subject matter, it combines both explanation and narration.

A **talk** is discussion of the questions studied as set by the instructor and followed by a summing up by the instructor.

This method facilitates deepening and consolidation of the trainees' knowledge. It is helpful for developing clear thinking and concise speech, substantiating the propositions analysed, making calculations. Errors or wrong statements made by trainees may be revealed and corrected by others. The method of the talk is generally used in seminars.

**Show** (demonstration) serves to give trainees correct notions of how to handle weapons and materiel, of the design and functioning of military equipment. It consists in a model performance of the relevant action or technique by the instructor, showing of films, diagrams, or weapons systems. Show is generally accompanied by brief explanation. It is often used as help to other methods of instruction.

A show is widely used in group exercises, the instructor giving model formulations of decisions, directions and instructions illustrating a commander's control and leadership technique. It is also used to teach the technique for carrying out certain actions and movements during tactical drills.

**Exercise** (drill) is multiple repetition of operations and procedures to develop skills. It serves to teach the trainees to apply their knowledge and to perform certain actions in particular conditions. It is generally accompanied by show and demonstration.

**Practical work** consists in trainees performing their functional duties as part of a control body, a subunit, unit or formation in complicated operational conditions. It serves to extend their knowledge, abilities and skills and to improve their moral, political and combat capacities in simulated battle environment. Practical work demands high efficiency and self-reliance. Therefore, it begins only when the trainees have acquired the necessary minimum knowledge. This method is widely used at tactical lessons, command post and field training exercises.

**Individual study** of regulations, manuals and other sources implies reviewing, reading and summarising the recommended literature to expand, deepen and consolidate one's knowledge. By studying the literature individually the trainees develop independent thinking and learn how to make conclusions and generalisations. Individual work is organised and directed by the instructor, who gives consultations to the trainees whenever necessary.

Teaching methods produce maximum effect when the instructor skillfully combines explana-

tion, talk, show, exercise and practical work in the training process. The form of training must be chosen according to the circumstances.

## FORMS

The forms of training are essentially dependent on the conditions as a whole: the training standard and organisation of the trainees, the structure of the lessons, their place and duration. The choice of form is dependent primarily on the training objectives and the trainees category. With officers it will be lectures, seminars, group lessons, tactical tests, individual studies; with staffs, staff drills, command post exercises; with troops, field and tactical lessons and exercises.

Let us consider some of these briefly.

A seminar permits deepening, consolidation and systematisation of the theoretical knowledge acquired in some aspects of tactical training. The effectiveness of the seminar greatly depends on the atmosphere of the lesson. The best results are achieved when the trainees freely express their opinion on the question dealt with.

A group exercise is a form of operational and tactical training of generals and officers used to consolidate theoretical knowledge, to acquire skills and proficiency in organising and planning combat activities, control and leadership.

Group exercises are widely practised in military schools, during officers' training periods and at officer training assemblies. The trainees are usually divided into study groups. They read the recommended literature and the tactical situation and prepare to act in one or several capacities (commander, chief of staff or chief of a fighting arm or service), while the instructor takes on the functions of superior commander and his staff, adjacent units or of the enemy.

Group exercises may be held in the field, in classrooms on the maps, or on a terrain model. These exercises take usually one topic at a time and involve one type of combat which is covered during one or more lessons. Several problems are studied during group exercises.

A tactical briefing is intended to check the competence and skills of officers in a particular aspect of troop control, to provide training in self-reliance, quick analysis of the situation, the decision making and mission assignment. A tactical briefing is a lesson involving solution of one or seldom two tactical problems.

A staff drill is a form of staff training intended to develop individual skills of staff officers in performing their particular duties and to promote teamwork between departments, divisions, sections and other elements.



The staff drill consists in the staff officers (supervised by the commander or chief of staff) doing their job in planning and troop control in a simulated combat environment making use of communication equipment.

A command post exercise is a form of commanders' and staffs' combined training. As regards purpose command post exercises are divided into general, inspection, special, demonstration, experimental, research and development exercises. According to scope they are divided into tactical, operational and strategic exercises; as regards the parties involved they may be either one- or two-sided.

A command post exercise is generally devoted to a complex subject involving more than one type of fighting. It is intended to perfect practical skills of generals and officers in troop control and leadership, to promote smooth work of bodies and agencies, to check the proficiency and teamwork of staffs.

A field training exercise is the most popular form of combat training of commanders, their staffs and forces. A field training exercise provides the best conditions for combat teamwork of units, for improving skills and efficiency of commanders and staffs in organising and controlling combat activities. As regards scope field training exercises are divided into company, battalion, regiment, etc. exercises. According to their purpose they may be general, inspection, demonstration and experimental. As to the parties involved they are either one- or two-sided and as regards the degree of fire simulation they may or may not involve live ammunition firing.

A one-sided exercise provides for simulation of the enemy by a force with special simulation equipment. The exercise may be held on any terrain under a variety of weather conditions by day or by night.

A field training exercise is developed and controlled by an officer who is one level higher than the unit under training. He is aided by his deputies, staff, chiefs of the fighting arms and special services, the main responsible body being the staff.

The forms and methods of training are organically inseparable. The form generally determines the method and vice-versa: a lecture the lecturing method, a seminar the talk method, a group exercise, tactical briefing, staff drill and tactical and marching drill exercise the exercise method, tactical exercise, command post exercise and field training exercise the practical work method. The forms and methods of training must be continually perfected and used imaginatively with due regard for the concrete situation.

## ARMED FORCES

### PHYSICAL TRAINING: COMPREHENSIVENESS OF PROGRAM DESCRIBED

Moscow SOVIET MILITARY REVIEW in English No 3, Mar 81 pp 62-64

[Article marking the 50th anniversary of the All-Union physical fitness program "Ready for Labor and Defense of the USSR" by Rear Adm N. Shashkov, chairman of the Sports Committee of the USSR Ministry of Defense: "Physical Education for Millions"]

[Text]

Physical education in the USSR is an important means of strengthening people's health and preparing them for their work and for the defence of their socialist state. The methods and forms by which Soviet people receive physical education were elaborated as far back as the 20s and 30s, when more than 60 voluntary sports societies were organized. Intense military-patriotic and sports work was carried out among the population by Party, state and public organizations.

To attract the people to take part in regular physical education, the all-Union physical-fitness programme "Ready for Labour and Defence of the USSR" (abbreviated in Russian as GTO), first stage, was adopted throughout the country in March 1931. It included the requirements for sports standards in running, long and high jump, swimming, rowing, skiing, cycling, grenade throwing, weight lifting and weight carrying and pull-up exercises on a horizontal bar. To give the people military education and the appropriate skill, the GTO programme included military-applied events such as marching drills, camouflage, topography, hand-to-hand fighting, rifle firing, first aid and so on.

A year later a new and more complicated GTO programme was introduced. This was followed by the "Be Ready for Labour and Defence of the USSR" (BGTO) physical-fitness programme for children. The exercises and athletic standards adopted by the GTO programme formed the basis of physical education at schools, secondary vocational and higher educational establishments and physical culture collectives at industrial enterprises, institutions, collective and state farms.

In 1937 unified all-Union sports ratings were established which was very important for reviving mass sports activities and scoring new sports achievements.

In the mid-1930s the organization and method of the physical education system in the Soviet Union were substantiated and further developed. An integral part of this system is the physical training programme of the Soviet Armed Forces.

The introduction of the GTO programme contributed greatly to enhancing physical fitness in the Soviet Armed Forces. A sports emulation movement was initiated in companies, regiments, divisions and military districts. The contestants who achieved the best results were awarded badges.

During that period army sportsmen became the initiators of distant ski and dismounted marches and summer and winter spartakiads with a great number of competitions. National teams began to be organized at the Frunze Central House of the Red Army (now the Frunze Central House of the Soviet Army). By persistently improving their skills army sportsmen scored bigger successes in all-Union competitions.

The Soviet physical education system and its training of young people for the defence of their Motherland, proved their worth during the grim years of the Great Patriotic War (1941-45). After the war real mass physical culture movement developed in the country. Trade union voluntary sports societies were reorganized, new rural sports organizations were established and the system of physical and military-patriotic education of students was improved. The sports facilities and equipment were considerably increased, new physical culture educational establishments were opened and the number of winners of the GTO badge steadily increased. As a result the number of people who practised sport regularly increased by millions.

All this made it possible to prepare worthy replacements for the Soviet Armed Forces. It must be borne in mind that the complicated conditions of modern battle make higher demands on the physical fitness of every officer and man.

To meet the new requirements, measures were taken to improve the physical training system in the army and navy. One such measure was the publication of a physical training manual which serves as a guide for organising and carrying out physical training lessons and mass sports arrangements including the GTO tests. Annual all-army sports reviews have become a tradition. Their purpose is to sum up the results of sports activity in units, formations, military educational establishments and fighting services in order to determine the winners. The number of those awarded the GTO badge is an important factor in the overall assessment of each military unit competing.

The high physical training level of army sportsmen and their intense sports activity enabled them to conquer a stable position both in all-Union and world championships. The participants in the First Spartakiad of the Soviet Nations (1956) included more than 1,000 army sportsmen, 90 of them winning the title of national champion. The following spartakiads played an important part in preparing Soviet sportsmen, including those in the forces, for the Olympic Games.

The establishment of the Friendly Armies' Sports Committee (FASC) — a sports union of the socialist armies — was a new step in further strengthening comradeship-in-arms between the armies of the socialist countries. The FASC is aimed at improving physical training in the friendly armies, facilitating exchange of experience in organising research in the field of sport and promoting higher sports achievements.

Important work to improve the physical training guidance in the Soviet Armed Forces is carried out by the Sports Committee of the USSR Ministry of Defence instituted in 1962. It initiated deep and comprehensive research to determine the interconnection between physical and combat training of military personnel. Specialists worked out rating standards for a number of military-applied exercises. The introduction of standards for military applied exercises made sport still more important in combat and physical training of the armed forces.

Owing to the fact that a higher standard of general and special physical training was required of servicemen, the GTO programme was replaced by the Military Sports Complex (MSC) instituted on January 1, 1965. The MSC formed the basis of mass sports activity in the Soviet Armed Forces.

Among the competitions held in the forces those conducted under the mottoes: "From GTO Badge to Olympic Medal" and "Officers' Starts" are especially popular. Physical training and sports serve to further raise the forces' combat readiness, to improve their military, naval and air training standards and their professional skills. The same purpose is pursued by mass sports contests such as platoon combined competitions, military triathlon, officer combined competitions, obstacle course negotiation, cross-

country running, military-applied relay races, etc.

The army and navy provide all possibilities for turning out highly qualified sportsmen capable of competing in world championships. They have the most up-to-date equipment and new sports establishments are continually being commissioned.

The constant care of the Communist Party and the Soviet Government for the harmonious development of the personality gave rise to a mass physical culture movement in the country. Thousands of sportsmen train in voluntary sports societies and sports clubs of industrial enterprises, educational establishments, collective and state farms. A new all-Union physical-fitness "Ready for Labour and Defence of the USSR" programme was introduced in March 1972. It devoted particular attention to military-applied events so as to prepare people for military service.

The GTO programme provides improved organisation and guidance of the physical culture movement and the new forms of mass sport events help to make sport still more popular. Various competitions to meet the requirements of the GTO programme are held all over the country. Very popular is the contest "Hopes of the Future" for children.

The GTO programme contributes to the harmonious development of the Soviet people, helping them to maintain their health, capacity for work and creative activity for many years. The programme consists of five stages designed to take into account the special features of different age groups.

Each stage of the GTO programme includes two parts. For the first part the candidate must show knowledge of the Soviet physical education system, personal and public hygiene, the rules and means of self-protection against mass destruction weapons and must regularly perform morning exercises. The second part consists of exercises. Those who meet the requirements of the first, second and third stages receive a silver or gold badge, those who meet the requirements of the fourth stage receive a gold badge with distinction. Success at the fifth stage is rewarded with a gold badge.

The Soviet people have all the possibilities for passing the tests of the GTO programme. Today the country has 3,000 large stadiums, 70,000 gymnasiums, more than 1,500 swimming pools and over 600,000 sports grounds and playing fields. These and many other sports facilities are provided for 55 million athletes and sportsmen who are trained by 52,000 highly qualified coaches and over 6 million coaches and instructors working on a voluntary basis.

Every year millions of people take the GTO tests. They compete in strength, agility, quickness of response and endurance. The GTO programme trains the Soviet people in a spirit of readiness to work for the lofty communist ideals and to defend their Socialist Motherland.

## AVIATION REGIMENT MAINTENANCE OPERATIONS DESCRIBED

Moscow SOVIET MILITARY REVIEW in English No 12, Dec 79 pp 26-27

[Article by Col V. Lebedev: "Engineering Is His Calling"]

[Text]

Leonid Anishchenko was in a hurry. A strong wind was blowing outside and the sky was overcast. It was drizzling. That day Major Anishchenko, deputy squadron commander for engineering service, was to be at the work site of the regimental aircraft servicing sector where scheduled maintenance was nearing completion on one of the squadron's airplanes. Anishchenko had made up his mind to see for himself whether everything had been done correctly.

"Good morning," he said to the sector's chief. "I see you've been here for some time already," he added.

He liked this tall, broad-shouldered, composed man, who worked hard and was respected by the whole regiment.

That day, however, was an unlucky one for the sector's chief and his subordinates. Anishchenko learned that the sector's specialists had failed to check the fluid level in the undercarriage shock-absorber leg.

Anishchenko could, of course, have done with a report to the unit commander. But he insisted that the question of the quality of maintenance operations be discussed at a session of the Party committee and at the method council technical section. Certain officers questioned the expediency of such a measure, but Anishchenko resolutely opposed the skeptics, holding that there could be no trifles where reliability of combat equipment was concerned. Eventually, everybody agreed with him.

Anishchenko started with the improvement of technical training. Inspecting the classrooms one day, he noticed that there were few training aids and stands there. Some diagrams and graphs had yellowed with time and needed to be redone. Anishchenko then visited

aircraft parks and the squadron's service premises. There too he discovered a number of shortcomings.

Before taking a concrete step Anishchenko always thinks everything out thoroughly and has talks with his subordinates. That was exactly the case when he reported his observations to the unit commander after having specified the state of engineering service in the unit. Then he drew up a long-term plan which the commander readily approved. The plan provided for theoretical and practical training and for individual assignments to specialists of different categories, as well as for new training facilities and whole classes.

There was a particular need for a special monitoring class, because in-flight monitoring data allow engineers to make precise estimates of the equipment's condition and foresee its behaviour for the future. It also enables them to establish the causes of failures in the air.

Once a malfunctioning in the aircraft's power plant through the pilot's negligence occurred in flight. On landing the pilot reported the incident to the squadron commander. But nobody informed the engineers about what had happened. It was only owing to the in-flight monitoring data that the specialists were able to find out the fault.

The incident was discussed with the flying personnel, and the crew responsible for the fault were duly reprimanded. The deputy squadron commander for engineering service held a special lesson on the rules of engine operation in the air. The lesson was undoubtedly of great use. But Anishchenko realised that it would have been much more useful if it had taken place in a room with special equipment for viewing and analysing the in-flight monitoring

data. So he decided to organise such a class as soon as possible. To implement his idea, he enlisted the services of such experienced specialists as Major Engineer A. Golovkin, Praporshchik B. Kozlov and others. In the beginning a mockup was made to determine what equipment was preferably to be installed and in what place, and what additional in-flight monitoring aids were to be manufactured. The unit commander approved this initiative.

The airmen set to work, and the new class was soon commissioned.

The training base has changed considerably too. Highly popular with the airmen is a simulator of a radio station with an electrified functional diagram, which gives the operator the opportunity to improve and consolidate his skills in operating the station and to better understand the sequence and essence of the processes taking place in the electronic devices. Other simulators manufactured by the unit's engineers are also of great help to airmen in improving their knowledge of engineering. The equipment includes, for example, simulators for adjusting the limit switches in the flap control system, checking the fuel consumption measuring system, monitoring the condition of the aircraft's power system and for inspecting and tuning the artificial feel system.

Leonid Anishchenko succeeded in kindling the innovators' interest in his initiative. They worked with enthusiasm to renovate the training base. Today the unit has modern training classes for the main kinds of combat training and political education.

Once the commander observed that certain technicians overestimated their capabilities and claimed special conditions for themselves.



Anishchenko saw at once whom commander was referring to. He knew him very well and took a liking to him from the very beginning. The man in question graduated with honours, mastered his trade quickly enough and passed the exams to become 2nd class specialist. At the end of the year the bomber he was assigned to bore the inscription: "Excellent aircraft of the unit." Then he was entrusted with servicing a dual-control aircraft. Now he had much more work to do. But the technician worked hard and confirmed his reputation as an excellent specialist. He read a lot of technical literature to get ready to enter an engineering academy. The young specialist was elected to the squadron's Komsomol bureau.

Anishchenko closely watched the lieutenant's progress, supported him when the need arose, and cited him as an example for the others to follow. But one day he learned what the young technician had said to his chief:

"I am servicing a dual-control machine. So I got to have the best specialists to help me."

Anishchenko made up his mind to have a talk with the lieutenant. The engineer was surprised that such a capable man insisted on the best specialists for his crew, thinking it unnecessary to train them himself. First of all he thoroughly checked the condition of the aircraft he was servicing. Everything was all right. Then the talk started. That evening they talked for a long time. Nobody knows what they talked about, but since that day the young lieutenant's fellow-servicemen noticed a striking change for the better in his behaviour: he became modest and attentive to mechanics.

Communist Leonid Anishchenko spares no effort in working with the young people. In so doing, he makes use of diverse methods and forms. For instance, he originated a special ceremony at which trainees are made technicians after successfully passing their exams. The squadron is formed up for the occasion. The unit colour is brought out to festive orchestra music. The commander takes the floor. He says that new specialists are joining the military collective, and hands them over the service log of the aircraft they will have to prepare for flights.

Engineer Anishchenko lives by the principle: not only train but also educate your subordinates. Here is but one example to illustrate this.

There is a Captain M. Vasin, chief of the operational and maintenance service, a conscientious man and a competent specialist on the whole. In the past, however, he made mistakes in his work, e.g. he focussed his attention on matters which he considered important and tried to bypass those which he thought secondary. Anishchenko called in the officer and said:

"Vasin, you are trying to divide everything into significant and insignificant. But I believe that even minor negligence on your part may lead to big trouble. You should be more attentive to people. If they come to you with requests and suggestions, they consider them vital matters."

The talk made Anishchenko arrive at the conclusion that Vasin was not always capable of assessing correctly this or that suggestion. Moreover, not only Vasin but other officers as well thought that it was quite sufficient to finish a military school to become proficient specialists. He displayed tact and patience in convincing Vasin that he was wrong to think so. Anishchenko realised, of course, that one conversation was not enough. Nevertheless, he was pleased to observe that when leaving his studies Vasin was not so self-assured as when he was entering it. Something must have touched a raw nerve.

Anishchenko's personal experience played no small part in that. Vasin was well aware that after graduation from a secondary military school Anishchenko had worked as a technician and then as senior aircraft technician. Then he was appointed chief of the squadron engineering service. He had constantly studied diligently to keep abreast of the times. Then he felt that a higher education was a must. He entered a military academy and graduated from it with honours. Such sound professional training is helping the chief of the engineering service to cope with his tasks successfully.

Anishchenko can always quickly locate trouble in the equipment. Once V. Ivanov, senior aircraft technician, could not establish the cause of malfunctioning in a dual-control aircraft no matter how hard he tried. When Anishchenko learned

about it, he rushed to the technician's aid.

"It's overheating," Ivanov reported. "As a result the turbostarter becomes disengaged with normal monitoring parameters."

Having attentively listened to the senior lieutenant's report, the deputy commander for engineering service recommended that the coupling of the turbostarter to the engine compressor be checked. The check revealed the correctness of his assumption.

Anishchenko's efficiency report reads in part: "Has vast experience. Shows analytical thinking in troubleshooting. Systematically coordinates training with flying and technical personnel, shows competence in method. Pays much attention to elaboration of specific recommendations aimed at ensuring high reliability of all systems and assemblies of aircraft, and to flight safety."

Reliability of equipment depends on many factors, primarily on the personnel, their training level, and efficiency and exactingness towards their work. Anishchenko realises this fully well. He works hard and constantly sees to it that all the requirements of engineering service manuals and other documents are strictly carried out by commanders and subordinates alike.

Leonid Anishchenko contributed a great deal to ensure high reliability in the unit. The engineering service control point has been completely reorganised, and a new installation informing on emergencies in flight has been constructed with the active participation of Major Engineer V. Potapukh and Praporshchik V. Rudanov.

Anishchenko's working day is full of practical matters. He hates to remain in his study for long, preferring to be at aircraft parks, servicing grounds and classrooms, i.e. wherever new knowledge is acquired and equipment reliability and flight safety are ensured.

The unit's Communists have placed great confidence in Anishchenko by electing him to the regimental Party committee. In his Party work too he is as indefatigable as everywhere else. Anishchenko is rightfully respected for his firmness, principledness, sincerity and concern for others.

## GROUND FORCES

### FIELD TRAINING STANDARD DEFINED

Moscow SOVIET MILITARY REVIEW in English No 12, Dec 79 pp 16-19

[Article by Col Gen V. Merimsky (Merimskiy), dep chief, Main Administration of Combat Training, Ground Forces: "Field Training Standard"]

[Text]

In the Land Forces the term "field training standard" means the set of practical skills acquired by the personnel, proficiency and team-work of subunits, units and control agencies and their capability to conduct military operations under various conditions.

Field training includes tactical (special tactical), fire, technical (specialised) training, operation of combat vehicles, and also the moral-psychological and physical training of the officers and men.

As the means and methods of warfare progress the requirements of the field training standard change. At present the Land Forces are outfitted with large numbers of sophisticated fighting vehicles, complexes and weaponry. To employ these weapons and other combat equipment in battle every serviceman must be highly proficient in his special field and every crew must display excellent team-work. The volume of knowledge and practical skills to be acquired by the personnel is constantly increasing, whereas the time needed for their mastery remains unchanged. That is why it is necessary to search for more effective forms and methods of training of troops in all sections of the combat training programme, with the stress on tactics.

The Soviet Armed Forces strictly adhere to the basic principles of instruction, including consistency, systematism and training of troops in elements essential for victory in modern combat. In pursuit of the principle of consistency of instruction the training year has been

split up into two periods.

In pursuit of the principle requiring the training of troops in elements needed in war, all lessons, drills and exercises are conducted in conditions which approach those of real combat to the maximum degree.

Instruction has to be concrete. Every soldier and sergeant must acquire a definite volume of knowledge and skills in his special field to be competent in it. The purpose of training is not to provide superficial knowledge about everything. At the same time interchangeability in crews and subunits plays an unprecedented role. If some of the members of the crew are disabled this does not mean that crew served weapons and other equipment should stop functioning.

Since tactical training forms the pith of field training, it is quite natural that special attention is paid to the study of this subject.

The Land Forces employ three basic forms of drills in tactical training: tactical and marching drills, tactical drills and tactical exercises, including exercises with field firing.

Tactical and marching drill exercises form the first stage in achieving unit team-work. It is at these exercises that the personnel of subunits work on the methods of action in various forms of combat, first on the separate elements at a slow rate and then on the complex within the set standard time limits. The methods of action which have not been adequately mastered are repeated until the necessary degree of proficiency has been acquired by the trainees and until the subunits



exhibit effective teamwork.

The main method of instruction at tactical and marching drill exercises is drills.

The tactical situation is created to offer the most favorable conditions for work on the question being studied. However, it is not always necessary to create such a situation. Drills may be performed with or without the help of combat equipment.

The tactical and marching drill exercises are conducted by the commander of the given subunit.

Tactical drills are a higher stage in tactical training. Their purpose is to achieve teamwork in the subunits and to improve the skills of the commanders in the organization of combat and control of subunits in pursuit of their missions.

At tactical drills the questions being studied are examined in strict sequence against the background of a single tactical situation in the given form of combat.

The main method of instruction during tactical drills is practical work and drills in the fulfillment of procedures and methods of action on the battlefield. When such drills are held the whole subunit with weapons and other combat equipment participates in them. It also takes the support means provided by the tactical guide.

Work on study questions is conducted with a designated enemy. The drill is conducted by the immediate superior of the subunit commander whose subunit is executing it.

Tactical exercises are the highest form of instruction of subunits, units and formations. Their aims are:

- to get the subunits and units to achieve teamwork in executing missions in various forms of combat and to check their readiness for combat;

- to improve the skills of commanders and staffs in organizing military operations and uninterrupted control of subunits, units and formations in combat;

- to teach the personnel the skills needed for action of subunits, for the employment of weapons and other combat equipment, to develop in the servicemen a lofty morale and combat and psychological qualities.

A tactical exercise is normally devoted to a complex theme and is conducted in a difficult and dynamic situation. The commanders and

staffs learn to organize combat on the ground and to conduct engagements in any situation.

An exercise may be unilateral or two-side exercise. A two-side exercise produces more effective results. Although it is more difficult to organize and conduct such an exercise, it produces far better results in the training of commanders, staffs and troops.

All categories of servicemen find two-side exercises more interesting and exciting. Because such exercises compel them to solve all matters bearing on reconnaissance, intelligence, security and conducting of military operations.

The most complicated and effective form of troop training is tactical exercises with carrying firing. No other form is so instructive. In the course of such exercises the commanders and staffs gain practical experience in the employment of all the fire weapons available to them. They learn how to make effective use of these means for the neutralization and destruction of the "enemy". They acquire skills in controlling combat operations of subunits and units and learn how to employ competently the results of air and artillery attacks.

Tactical exercises with field firing produce a powerful psychological effect on the personnel. Artillery and mortar shafts flying over the heads of the friendly troops, massive fire from all weapons, shell bursts, air attacks carried out by bombers and attack planes on "enemy" targets in close proximity of the friendly subunits create conditions that closely approach those of real combat. Through the command encounters considerable difficulties in organizing tactical exercises with field firing, preference is often given to them.

Fire training is an element of the field training standard of troops. It is inseparable from tactics and is subordinated to the latter. Fire is a vital condition for the achievement of victory in combat. Unless the men are proficient in conducting accurate and rapid fire at various targets on the battlefield in any situation, in daylight and in darkness, they will be unable to attain victory.

At fire training drills the personnel study their weapons, fundamentals and rules of firing, learn to prepare the weapon for firing, detect targets, determine the distance to them, independently determine the initial firing data and hit various targets on unfamiliar ground

with accurate fire.

The main form of instruction here is fire practice, which is organized and conducted within the framework of a company. At such drills the men are taught firing techniques (handling of weapons), hurling hand grenades and accomplishment of fire missions in keeping with the firing rules.

In the course of firing drills special attention is paid to preparatory exercises which are mastered both with and without the use of ammunition. Depending on the proficiency of the men the commander works out the conditions for the preparatory drills. This method enables them to act effectively in various target situations. They cause the men to become tactically-minded and display initiative and independence in the fulfillment of fire missions.

The Land Forces are equipped with the latest combat equipment. This has enhanced the role of the technical training of the personnel, officer personnel above all. Though the officers have been equipped with adequate knowledge at military schools and academies, they will lag behind in military science unless they work hard to keep abreast of the latest development and to maintain their knowledge and skills at an adequate level.

The field training standard of troops largely depends on the technical competence of the vehicle drivers, on their skill in driving vehicles on poor roads and in negotiating all sorts of obstacles. Only persistent and regular training at tankodromes, motodromes, on various types of terrain and in difficult conditions enables them to become master drivers. Training in the operation of vehicles is conducted against the background of tactical situations and is accompanied by the execution of fire missions. The drills are planned to enable the trainees to acquire practice in operating vehicles in winter, summer and the autumn and

spring bad road season.

The field training standard largely depends on the training facilities at hand. New equipment calls for a new approach in mastering it. It is necessary to introduce more effective training aids to achieve better results. This is particularly true of fire and technical training and training in the operation of vehicles.

At present the Land Forces have been using various training aids and programme training classrooms on an increasing scale. These facilities help the men master the weapons and other combat equipment in less time.

The men will not achieve due proficiency in field training unless they are psychologically steeled, i.e. unless they develop qualities that will enable them to carry out any missions in the most dangerous and tense situations.

Party-political work is designed to help develop these qualities in the troops. The political bodies, Party and VCL organizations mobilize the efforts of the men to complete the combat training programme, and achieve excellent results in tactical drills and exercises, field firing and target practice drills, and in the operation of fighting vehicles.

Special attention is paid to the socialist emulation movement which is a potent instrument in the accomplishment of the missions assigned to the troops. The element of competition spurs the trainees to secure high and steady results in the training of every individual serviceman, every subunit and unit.

The field training standard is a vital indicator of the combat readiness of troops. In raising the efficiency and quality standard of combat training and political education the commanders, political workers and all personnel of the units and subunits of the Land Forces continue to improve their combat skills and do their utmost to strengthen the defence capacity of the country.

(SPRICKS) "Soviet Military Review," No 12, 1979

CSG 1812/58

## GROUND FORCES

### ANTITANK GUIDED MISSILES DESCRIBED

Moscow SOVIET MILITARY REVIEW in English No 12, Dec 79 pp 34-36

[Article by Col N. Kharitonov: "Antitank Guided Missiles"]

[Text]

**A**n important feature of modern combined-arms combat is the abundant use of armoured vehicles (tanks, IFVs, APCs) in battle formations of the warring sides. Whence the constant search for new antitank means and methods to improve the existing ones.

In recent years notable achievements have been made in this field. First, the armour-piercing ability of antitank missiles has been enhanced. Thanks to the use of cumulative effect scientists have been able to augment it more than two times. According to some foreign specialists modernised standard shells can also be used against tanks especially when fired from guns with high initial velocity (over 1,000 m/s).

Antitank guided missiles (ATGMs) proved to be a qualitatively new weapon possessing high hit probability. According to foreign press reports the hit probability of a moving tank is 70-90 per cent. Thanks to the use of shaped-charge warheads the armour-piercing ability of these missiles reaches 400-500 mm and even more. ATGMs do not lose this ability with the increase

of firing range which varies from 3,000 to 4,000 m. And, lastly, the relatively small weight and dimensions of portable antitank guided missile systems allow them to be located unobserved directly in the battle formations of advanced subunits. As a result, ATGMs were widely used in the ground troops of many countries. Recently they have begun to be used on an increasingly large scale as armaments for fire support helicopters.

The antitank guided missile system includes a launcher and 2-4 missiles. The launcher and missiles are usually packed separately and can be carried by the crew. The system can also be mounted on cross-country armoured vehicles such as APCs and IFVs or on special chassis.

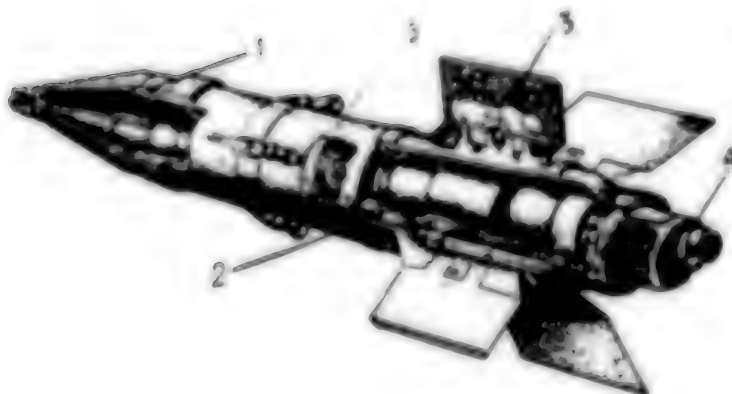
The main components of an ATGM are shown in Fig. 1.

The warhead is intended to destroy a target. It contains an explosive charge whose nose is a cone-shaped hollow. The damage effect of a shaped-charge warhead missile is radically different from that of an armour-piercing shell. When hit with a shaped-charge antitank missile, armour like any other solid obstruction is destroyed with a thin gas and metal jet which is produced by the exploding charge and has a directional effect. The armour-piercing ability of a missile increases if the value of its angle of impact approaches 90° and its angular speed is kept low. The cumulative jet is ejected at a velocity of 12-15 km/s at a pressure exceeding 100,000 kg/cm<sup>2</sup>. To enhance the damage effect of a missile, the charge hollow is covered with a thin metal coating.

The airframe houses all the components of a missile. Its middle or tail part (depending on the design) carries aerodynamic surfaces (wings or fins) which can be folded so as to decrease missile dimensions when in

Fig. 1. ATGM MAKEUP

1 — warhead; 2 — airframe; 3 — wings; 4 — power unit; 5 — missile-borne guidance



Based on Soviet and foreign press reports.

a travelling position. The airframe tail is equipped with tracers or some other powerful light sources in order to make the missile clearly visible in flight.

The power unit is installed inside the missile airframe and serves to provide the missile with the required velocity. It includes a booster and a sustainer. The former is used to develop a great reactive force so as to communicate the prescribed velocity to the missile on the launching trajectory. The purpose of the latter (sustainer) is to maintain the required missile velocity during its controlled flight until target hit. The sustainer nozzle can rotate around its longitudinal axis. As it deflects from its middle (neutral) position, a control moment of reactive force is produced, causing the missile to deviate according to the control law.

ATGMs are usually equipped with solid-propellant rocket engines made in the form of primer cylindrical grains.

The missile-borne guidance is the most important missile component. It is used in combination with the ground control equipment to guide a missile to the target. There are different remote-control systems used to convey control signals to ATGMs. But most widely used are those effecting control by wires or radio. Each of these systems has its own advantages and disadvantages.

The functional block diagram of the antitank missile guidance system is shown in Fig. 2.

The mission of destroying a target is carried out by the missile operator. He observes the battlefield, selects a target and launches the missile. Observing the target

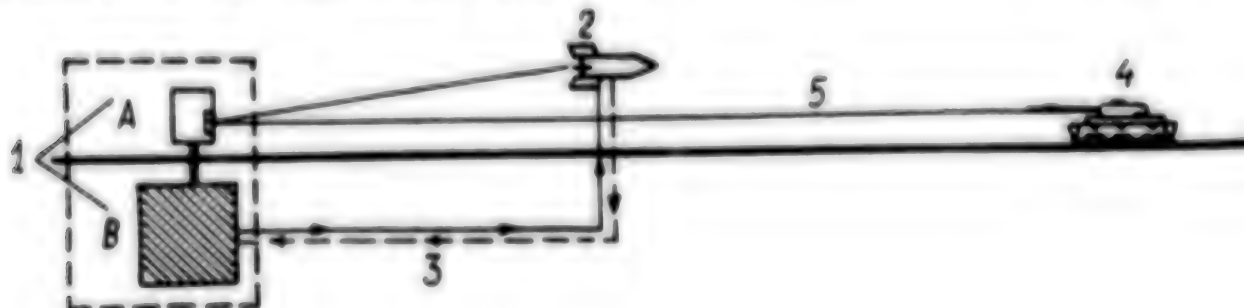
through the sights he guides the missile to it. The ground control equipment is used to produce and transmit control commands to the missile. The purpose of the missile-borne guidance is to receive commands, convert and convey them to the appropriate actuator devices (control fins, rotating nozzles, spoilers). Missile guidance may be executed by one- or two-channel control diagram. When the two-channel control diagram is used, the missile flies without spinning and its control may be effected simultaneously by altitude and directional commands transmitted through the two channels in the vertical and horizontal planes respectively. In these circumstances the missile actuator devices deflect the missile upwards or downwards and to the right or left, thus appropriately changing its position relative to the target.

When a missile is guided according to the one-channel diagram, it spins in flight. The control signal causes missile deviation only in one plane (horizontal or vertical). Therefore, with a spinning missile control commands are transmitted so as to deflect it on both planes. One-channel control is usually used for ATGMs of small size and weight and an easily operated missile-borne guidance.

The launcher of a portable antitank missile system is designed to guide a missile before launching, to make the launch itself, and also to accommodate the ground control equipment. For instance, a launcher may be constructed as a rest outfitted with a sight and control equipment and mounted on a tripod. The missile proper is constantly enclosed in a special container no

Fig. 2. ATGM FIRING DIAGRAM

1 — launcher (A — sight; B — ground control equipment); 2 — ATGM; 3 — remote-control channel (by wires, by radio); 4 — target; 5 — "operator-target" line of sight



matter whether it is in storage, transported or placed on a launching rail. This measure greatly contributes to the high combat readiness of the antitank missile system.

The launcher of a SP antitank missile system carries a launching rack which consists of 4-8 guides. All the ground control equipment including remote control and auxiliary equipment is housed inside the launcher. Its crew consists of 2-3 men.

The so-called first generation of ATGMs began to be adopted for service in the late 1950s. Missile velocity was comparatively low — approximately 100 m/s. It took a missile on the average 20-25 seconds to reach a target which allowed the latter to manoeuvre on the battlefield. Missile operators' training was also rather complicated. The fact is that at that time ATGMs were manually controlled from a distance. Watching the flying missile visually the operator strove to match it with the line of sight to the target. Missile control was carried out with a steering handle provided on the operator's panel.

Manual control practically made it impossible to increase missile velocity since otherwise the missile operator would fail to correct the flight path of a missile.

The next step was the building of ATGMs with semi-

automatic guidance systems. These missiles have higher fighting efficiency. The missile operator's work becomes much more simple: after taking aim and launching a missile his only job is to keep a target crosshairs throughout the whole period of missile controllable flight. In this case control signals are produced and conveyed to the missile automatically.

Measures were also taken to improve missile characteristics further on. The ATGMs belonging to the second generation can destroy targets at a range varying from 25 to 6,000 m. Missile velocity was substantially increased, making it possible to reduce the time of missile flight to a target three or fourfold compared to their predecessors.

The further development of antitank means has led to the advent of a third generation of ATGMs. Their designers concentrated on improving their hit probability when firing in adverse conditions (rain, fog, snow-fall, smoke- or dust-filled atmosphere). These missiles are provided with active and semi-active homing heads and with target laser illumination.

According to many specialists, along with ATGMs tank attackers will also include tanks, field and antitank artillery, recoilless guns and other close combat antitank means in service of motorised infantry subunits.



AGTH being prepared for launching

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## GROUND FORCES

### RIVER CROSSING OPERATION IN WW II DESCRIBED

Moscow SOVIET MILITARY REVIEW in English No 12, Dec 79 pp 40-42

[Article by Maj A. Sokolov: "An Assault Crossing"]

[Text]

**A**n assault crossing of rivers is one of the most complicated types of combat actions. During the Great Patriotic War it was carried out by two methods: with a planned preparation and while on the move. The choice of the type of crossing depended on the given situation, character of the enemy defences and dispositions and possibilities of the division's units.

Negotiation of water barriers with a planned preparation was used in conditions of close contact with the enemy on a water barrier or when crossing on the move was unsuccessful. When close contact with the enemy holding heavily reinforced positions on the opposite bank was of a prolonged character, an assault crossing was carried out after the enemy defences had been neutralised by artillery fire and air attacks. The troop ferrying was carried out under reliable cover of all kinds of fire. During the artillery and air preparation the advanced infantry subunits and combat engineers were usually the first to get across. They destroyed the enemy weapon emplacements and made gaps through enemy obstacles in a riverside zone.

Moving after them on a wide frontage was the first echelon of an infantry division with a mission to capture an advantageous line, to consolidate on it, to organise an antitank defence and to secure the ferrying and deployment of the other units of the division on the opposite bank.

Artillery pieces and mortars were ferried by echelons so that their main part could continuously give fire support to the assault crossing and actions on the opposite bank.

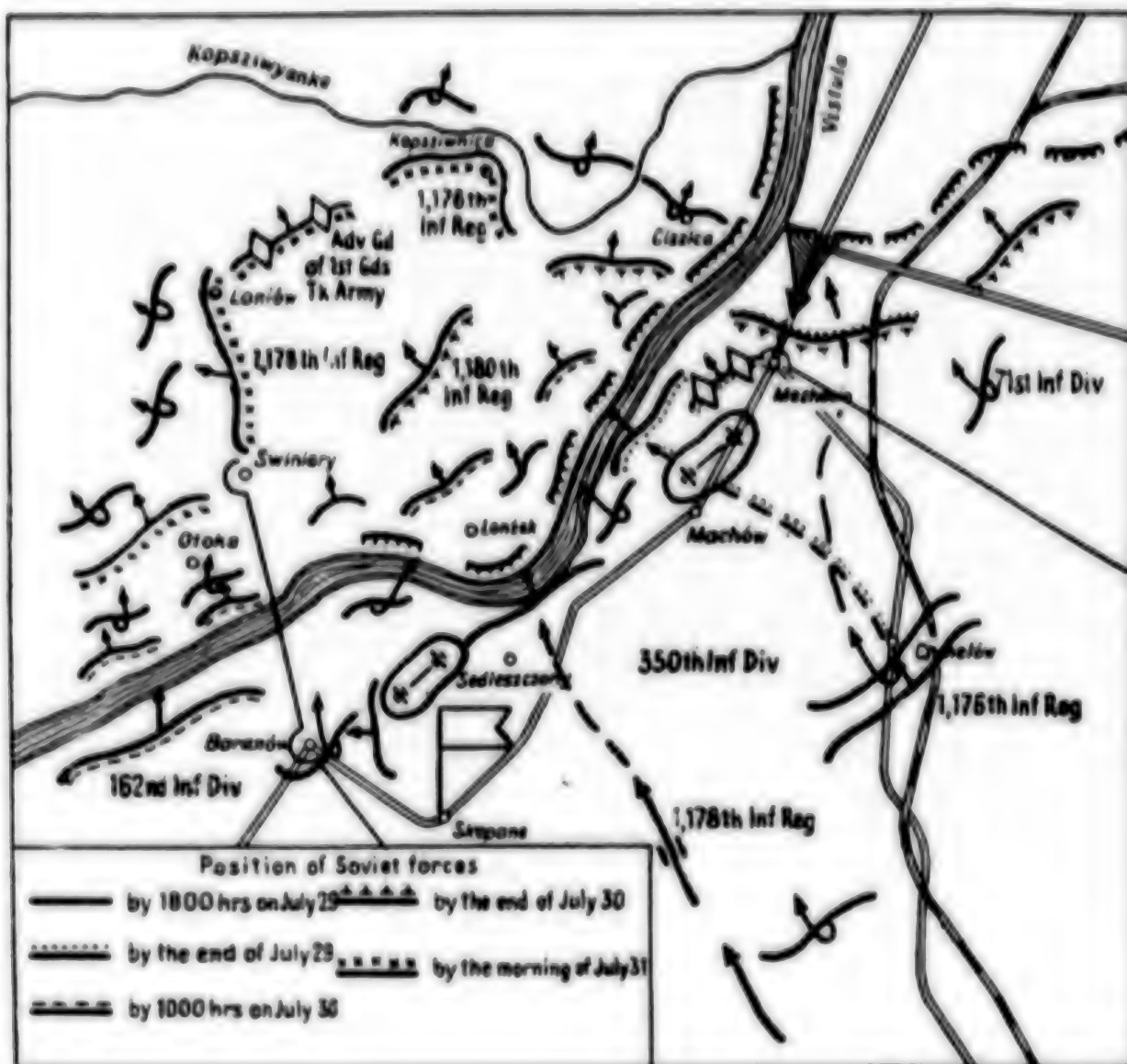
A motorised infantry division was given a section of crossing in the zone of its advance. Here several points were organised. Their number depended on the availability of fire neutralisation of the enemy, places advantageous for an assault crossing, and on provision of units with crossing means.

Preparation for crossing was carried out long before the beginning of combat actions. The reconnaissance obtained accurate and complete information on the strength and character of the enemy defences, and the peculiarities of the terrain and water barrier. To create the element of surprise, all necessary measures were taken to conceal the concentration of manpower and equipment, and regrouping of troops.

The case in point is an instructive experience of an assault crossing by the 98th Guards Infantry Division of the Svir River in June 1944 with a planned preparation. It was a very difficult water barrier. The river's width reached 300-400 m, and the depth 5-7 m. On the northern bank of the river the enemy organised a sustained and heavily fortified defence covered with engineer works and mine fields through its entire depth.

The 98th Guards Infantry Division (the 296th, 299th, and 302nd Guards Infantry Regiments) were ordered to cross the river on the Ladeynoye Pole-Kanoma sector (4 km in frontage). A detailed plan was elaborated in the formation. This plan took into account the breakthrough of the well fortified enemy defences on the opposite bank. In the rear subunits and units trained to cross a water barrier. Simulta-





neously an additional reconnaissance of the enemy fire system, lay-out of his FEBA and weak sectors in his defences was carried out. Much attention was paid to the preparation of the assault positions and the approach routes for the artillery, tanks and amphibious vehicles. During the night the necessary crossing means were transferred to the river.

At 0840 hrs on June 21, 1944, after a 30-minute air raid an artillery preparation began. Tanks and amphibious vehicles took up positions by the river bank. Dummy crossing carried out in the course of the artillery preparation

helped to detect the enemy weapon emplacements and to destroy them by direct fire guns.

At 1145 hrs the division's advanced subunits not waiting for the end of the artillery preparation started an assault crossing on the amphibious vehicles. In 5-10 minutes they reached the opposite bank and rushed into the enemy first trench. At 1212 hrs the main forces of the first echelon began an assault crossing. At first one infantry battalion from each regiment crossed the river. They captured a bridgehead and secured the crossing of the units of the first echelon. In 2-2.5 hrs the ferry crossing

began. This made it possible to quickly get across infantry regiments, regimental and part of the divisional artillery and also several tanks. By the evening of June 21 the entire division was on the opposite bank, its units were successfully advancing.

Thus, in conditions of a long contact with the enemy, the success of an assault crossing depended to a considerable degree on the thorough preparation and skilful organisation of the crossing. The choice of the place for the assault crossing played a decisive role here. The assault crossing was carried out on a sector which provided a good camouflage for the ferried units and had concealed approaches to the crossing. The reliable fire neutralisation of the enemy strong points located directly on the forward edge also contributed to the success.

The necessity of achieving high rates of advance in modern battle requires negotiating water barriers on the move. During the Great Patriotic War this method of assault crossing was used when pursuing the withdrawing enemy and when he had no deliberate defences on the water line or they were hastily taken up and with small forces.

The success of an assault crossing in this case was ensured by rapid and resolute actions of the division's units, particularly by its advanced guards and forward detachments, and by thoroughly organised cooperation between infantry and artillery and tanks. The units' commanders strove to approach the river before the enemy and to capture crossings and a bridgehead on the opposite bank. Taking into account the fact that the division's staff, as a rule, had not enough time, the planned table of the crossing was not drawn. All instructions concerning the crossing were given in fragmentary orders and separate combat instructions.

It was the advance detachments that usually began an assault crossing on a wide frontage as soon as they approached the river. They were followed by the main forces of an infantry division. Engineer units and crossing means attached to a division advanced simultaneously and additional ferrying points were organised.

The peculiarities of the formations' actions in negotiating rivers on the move can be traced on the example of the 350th Infantry Division which crossed the Vistula in July 1944.

During the offensive the division was assigned the following mission on July 27: pursuing the enemy to cross the Vistula on the move on the sector: Mechocin-Baranów (12 km in width), to capture a bridgehead and by the morning of July 31 to reach the line: Kopsziwnica-Lonów-Swiniary (see Sketch).

The division commander decided to begin an assault crossing by the advanced battalions on the morning of July 29 and then under their cover to negotiate the Vistula with the main forces. The division, comprising 1,176th, 1,178th and 1,180th Infantry regiments, moved in regimental columns. The 1,178th Infantry Regiment acted in the advanced guard of the regimental columns. The 1,178th Infantry Regiment acted in the advanced guard of the main forces of the formation. The unit commanders were in the leading detachments while their staffs moved at the head of the regiments' main forces. The division commander moved with the advance regiment which allowed him to respond to the given situation in good time.

The division's battle formation made it possible to quickly deploy when meeting the enemy.

Because of strong enemy resistance the division's units could approach the Vistula only in the second half of July 29. The reconnaissance men were the first to reach the western bank of the river. Then the leading detachment of the 1,178th Infantry Regiment forced the Vistula. On the opposite bank it captured a bridgehead and secured the crossing of the main forces of the regiment.

When night fell two ferry-boats available in the division and a 9-ton ferry captured from the enemy were lowered on the water. They were used to get the divisional artillery across.

The advanced subunits of the 1,176th Infantry Regiment approached the river only by the end of the day because of strong enemy resistance in the area of Chmielew and Mechów. On the night of July 29, one battalion managed to get across to the western bank and to capture a bridgehead. In the evening of July 29 the advance detachment of the 1st Guards Tank Army reached this area too and started an assault crossing at once.

Rapid actions of the advanced guard units in forcing the Vistula enabled them by the morning of July 30 to extend the bridgehead up to 4 km in frontage and 6 km in depth. This made it possible to ferry the entire 350th Division

during the day time.

The success of the forcing was achieved as a result of the thorough preparation of units and the quick pace of the offensive, which deprived the enemy of the possibility to take up defensive positions on the left bank of the Vistula in advance.

Party-political work carried out in the division had played an important role in forcing the water barrier. It was aimed, first of all, at explaining to the fighting men the necessity for the quick negotiation of the river, at developing in them fearlessness, purposefulness and staunchness in battles for extending and holding the bridgehead.

During the Great Patriotic War the Soviet forces accumulated a wealth of experience in forcing water barriers. This experience is undoubtedly of value in contemporary conditions when mobility and manoeuvrability of troops have sharply increased. Negotiation of water barriers on the move which makes it possible to maintain a high rate of advance and ensures a rapid capture of bridgeheads acquires particularly great significance. Training troops to force water barriers skilfully is one of the most important tasks of a commander.

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## GROUND FORCES

### TROOP CONTROL IN WW II OFFENSIVE OPERATION

Moscow SOVIET MILITARY REVIEW in English No 12, Dec 79 pp 43-44

[Article by Col Z. Alexandrov (Aleksandrov), Cand. Sci. (History): "Control on an Offensive"]

[Text]

**S**ecuring continuous troop control is one of the most important requirements for achieving victory in battle. The Great Patriotic War (1941-45) is a case in point.

The division commander's decision to give battle was the basis of troop control. Here he took into consideration the opinion of his assistants and staff officers. In the counteroffensive at Moscow in December 1941, despite the fact that only one day was given to organize and prepare units of the 1st Guards Infantry Division for combat, the formation's Command managed to take and frame the decision quickly. In working out the decision, besides the commander, the division's commissar, the chief of staff and other officers of the division took part. The decision was brought in good time to the subordinates' notice. On the CP the division commander issued a verbal order and gave instructions on cooperation to the regimental commanders and commanders of reinforcing units. Missions assigned to the units were duplicated by an operations order given through a liaison officer. Taking into consideration the fact that the enemy defences had great gaps between strong points, the Command ordered that the offensive be launched from the move, without a preliminary taking up of the line of departure in close proximity to the enemy.

Accurate coordination of the offensive and firm control over units during battle enabled the units of the 1st Guards Infantry Division in cooperation with formations of the 13th Army and the 5th Cavalry Corps from 7 to 15 December, 1941, to break through the enemy defences, and to encircle and destroy the main forces of the 34th Army Corps of the Nazi troops.

Taking a decision to break through the organized defences was carried out in a definite succession. Having received the combat order the division CO briefed his chief of staff, deputies and artillery commander. Simultaneously he obtained more specific information

from them and other chiefs and commanders on all unfamiliar aspects of the situation and listened to their suggestions. On the basis of this the CO took a preliminary decision on the map and informed the unit commanders on it. Then he carried out on-the-spot reconnaissance after which he took a final decision and announced it to the commanders. In the decision the division commander defined the order of the employment of the subordinate and attached units. His skill manifested itself, first of all, in his ability to correctly choose the direction of the main blow, to build up on it secretly and in a short time a grouping of manpower and equipment superior to that of the enemy forces.

In the 337th Infantry Division on January 26, 1944, the direction of the main blow was chosen on the right flank, in the sector of the 1131st Infantry Regiment, at the limiting point between the two enemy battalions. Here the division commander concentrated all attached tanks and self-propelled artillery mounts and the bulk of the artillery. As a result, the regiment managed to obtain 2.5-fold superiority over the enemy in manpower, 4-fold superiority in artillery pieces and mortars and 10-fold superiority in tanks and self-propelled guns.

In the decisions of the division commanders, depending on the situation, battle order was determined as one- or two-echelon formation and less frequently in three echelons. In our case the battle order of the 337th Infantry Division was one-echelon, which was explained by the relatively light enemy defences, the shortage of manpower and equipment and by the striving of the division CO to deliver a strong first blow.

Much attention was paid by the staff to planning combat actions. This consisted in drawing up the decision taken by the commander, in elaborating questions of cooperation, in using branches of the service and in



planning Party-political work. In the staff this work began with the assignment of a combat mission and was carried out simultaneously with the organisation of combat actions and, as a rule, preceded the giving of orders and instructions to the troops. The working map of the commander was the main document when carrying out offensives during the war. It helped him assess the situation, take a decision, assign missions to the subordinate units and secure control over their fulfilment.

The experience of the war showed that no matter how well combat documents might be drawn up by the division staff, of decisive importance in the successful execution of the assigned mission was the thorough, painstaking work of the division's CO, unit and subunit commanders in organising cooperation. An infantry division was usually given up to two days for carrying it out, the regiment and battalion commanders — not less than a day. Beginning with 1944 the division commanders organised cooperation to the depth of the day final mission. It was worked out most thoroughly to the depth of the initial mission of the division (3-5 km). Thus, in the above mentioned 337th Infantry Division the actions of all elements of battle formation and arms of the service were well coordinated. In particular, the actions of infantry, artillery and tanks were closely coordinated. Officers from the artillery subunits carried out target designation for their batteries from the commanders' tanks. Engineer subunits organised concealed approaches to the enemy FEBA, made gaps in his mine fields and designated them well. Subunits of chemical defence got ready for smoke screening the zone of advance. To maintain steady coordination the observation posts of the division CO and commanders of the attached and supporting units were situated in one place. A special liaison was also organised.

Skillful organisation of the control posts was of paramount importance for firm and flexible command in battle. There were two posts in the division: command post (CP) and rear command post. An observation post (OP) was usually detailed from among the CP's personnel. From the OP the commanding officer exercised troop control in the course of battle. During the war control points constantly kept close to the troops' battle formations.

A great role was played by such aspects of troop control as the ability of the commanders and staff officers to skillfully and quickly respond to the sudden and unexpected changes in the situation, not to lose a sense of reality in assessing the events and to be an example of self-control and courage to the subordinates. The importance of these qualities can be demonstrated by the following example. During the offensive in Byelorussia in the winter of 1944, units of the 12th Guards Infantry Division encountered fierce resistance by the enemy defending advantageous positions. The manpower and equipment of the second echelon had been expended and essentially the offensive was frustrated. The division commander had at his disposal only a separate ski

battalion which was to be used to deliver blows at the enemy flanks and his rear.

Having discussed the situation with his chief of staff and deputies, the division CO took a decision to commit the separate ski battalion to action. On the evening of January 11, the battalion CO Major M. Burshtyn was assigned the mission: on the night of January 12, by a surprise attack without an artillery barrage, using the entire fire power of the small arms, break through the enemy defences in the centre of the division's zone of attack. The commanders of the 29th and 32nd Guards Regiments at whose limiting points the ski battalion was committed to action, were instructed to cover its flanks with machine-gun fire and after the breakthrough of the forward edge to pass over to the offensive immediately. The next day reconnaissance-on-the-spot was carried out before dawn, the mission specified on the ground and cooperation organised.

At 2300 hrs on January 12, in pitch darkness the ski battalion began the attack. What happened instantly stunned the nazis. The infantry companies opened an intensive fire with submachine guns and machine guns. Partially loaded with tracer bullets they created an unusually dense, solid zone of fire which was easily visible for the nazis. The utterly surprised enemy abandoned his positions and ran into a forest.

Having received by radio the information on this from Major M. Burshtyn, the division CO ordered all infantry regiments immediately to assume the offensive to make use of the ski battalion's success in good time. By 0400 hrs on February 13, subunits of the ski battalion, having advanced forward up to 8 km, approached the town of Kalinkovichi, after securing the offensive of the division's main forces. Thus the creative decision of the commander, efficient organisation of commitment to action of the division's reserve, and firm troop control during the offensive by night ensured the execution of the combat mission.

On the whole, during the Great Patriotic War, control over the division's units represented a constant alternation of the estimation of the situation with the decision taken and the assignment of new and specified combat missions. Decisions taken by the division commanders during the combat operations provided the manoeuvre with manpower and equipment, broad employment of wide envelopments and outflanking movements, and delivery of blows at the enemy's flank and rear.

The Great Patriotic War gave much valuable and instructive experience in troop control during the offensive. It was ensured by the maximum possible approach of the CPs and OPs of the division to the forces. Saturation of divisions with various communication means made troop control in battle more stable and flexible. Having stood the test of the war many problems of the organisation of control and methods of the work of the commanders and staffs have not lost their actuality at the present time.



## GROUND FORCES

### FORMS OF MANEUVERING IN COMBAT DISCUSSED

Moscow SOVIET MILITARY REVIEW in English No 3, Mar 81 pp 13-15

[Article by Lt Gen V. Reznichenko, D. Sc. (Military), Professor: "Manoeuvring Skill"]

[Text] A commander's skill is proved by his ability to create favourable conditions for carrying out combat actions in any situation. This can be achieved by rapid movement of subunits, redirection of forces and weapons from one line of advance to another to press home an attack or repulse enemy attacks and counterattacks. Manoeuvre with forces, weapons and fire contributes considerably to achieving success.

#### ESSENCE OF MANOEUVRE

An outstanding role in elaborating methods of manoeuvring and creating the tactics of manoeuvring in general belongs to Soviet military art. Battle experience shows that manoeuvre is always an inalienable part of combat. Without manoeuvre it is impossible to concentrate the necessary manpower and equipment quickly on the main line of advance, to shift the effort to a new direction, to deliver a blow at the enemy flank or rear or to encircle and destroy him.

I remember an episode which took place during the counteroffensive of the Soviet Army at Stalingrad in the autumn of 1942. The 65th Army met with stubborn resistance of the Nazi forces on a previously organised defence line. In order to break down the enemy resistance the army commander decided to send the 91st Separate Tank Brigade against the rear of the enemy grouping.

After a night manoeuvre aside from the breakthrough sector, the brigade broke through the FEBA by a surprise attack. Rapidly advancing it approached Vertyachy and Peskovalka farms without the enemy knowing, destroyed the headquarters of the enemy formations and captured two bridges launched across the Don. A daring manoeuvre of the tank brigade forced the enemy to start withdrawing.

Frequently manoeuvre was the important factor in defeating superior enemy forces. For example, Major Fedoseyev's S&I Battalion of the 83rd Infantry Division of the Karelian Front routed twice superior reconnaissance detachment of the SS 6th Infantry Division in a battle near the Nizhnye Lake.

Experience of manoeuvre actions during the war has not lost its significance today. It remains a source from which the commanders draw and creatively apply tactical methods used on the battlefields.

With the development of weapons the significance of manoeuvre also increases. The improvement of weapons, complete motorisation of forces, their increased mobility have radically changed the character of modern battle. Long drawn-out, measured actions of forces have become entirely a thing of the past. They have been replaced by dynamic combat actions, their spatial scope has increased. Movements, marches, blows on the move and manoeuvre on the battlefield have become the chief forms of activity in battle.

The conditions for carrying out manoeuvre have changed too. If formerly manoeuvre actions began, as a rule, after the main defence zone had been broken through, it is now possible by delivering powerful blows, to create a breach in the enemy defences through which a manoeuvre can immediately be performed to strike at the flank and rear of the defending subunits.

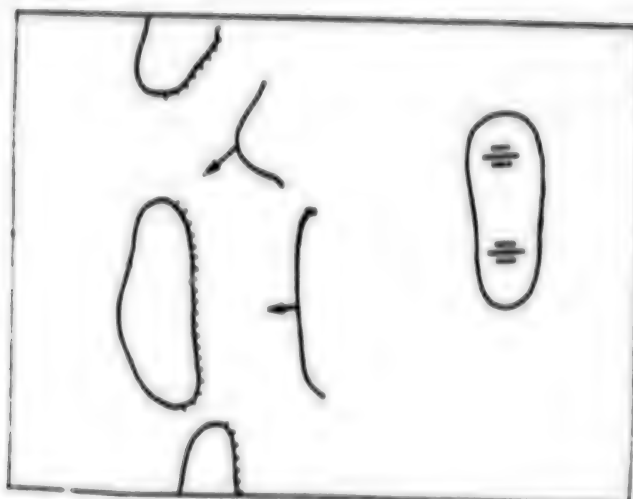
At the same time speed of manoeuvre on the battlefield and over it has increased and possibilities have appeared to use the results of fire quickly, to shift efforts to the depth and from one direction to another, to intensify efforts where the greatest success has been achieved and to attack the enemy on the move.

Thus, the material basis of warfare and its character have changed the very essence of manoeuvre giving it a new content. Proceeding from this, one understands by the term manoeuvre today the switching of blows and fire and organized displacements of troops to create the most favourable grouping of friendly forces and equipment for successful fulfilment of the assigned mission. Such a definition reflects both the essence of contemporary manoeuvre and its general purpose.

#### PURPOSE OF MANOEUVRE

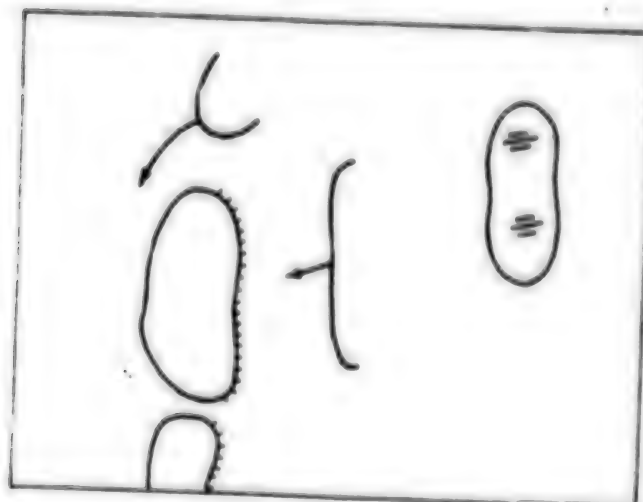
Manoeuvre can serve different purposes. Depending on conditions and concrete combat missions, manoeuvre can be used to ensure effective use of the results of fire, to increase efforts on the main line of advance or shift them to new ones, to bypass contamination zones, areas of destructions and fires, to fight approaching enemy reserves, withdraw from enemy blows, replace subunits and units which have suffered great losses and lost their fighting efficiency, etc.

Each of these purposes is achieved by various ways. The use of advanced detachments and tactical airborne

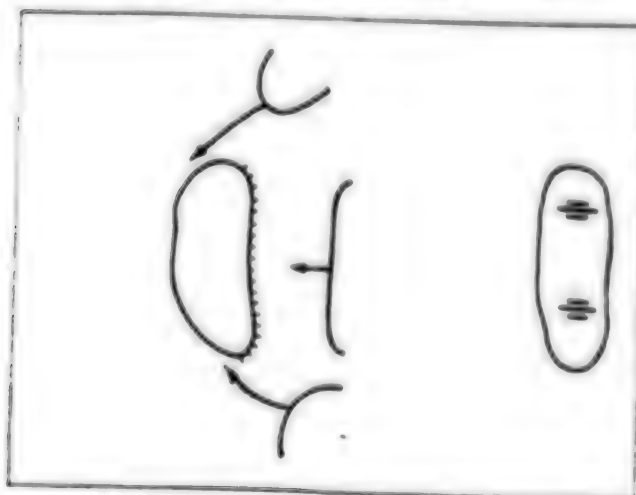


Envelopment

Turning movement



Combination of enveloping and turning movements



forces, rapid action of troops in positions and march formations, emergency measures of attacking suddenly mounted on APCs and IFVs through gaps and breaches in the enemy combat formation in order of its front and rear, concentration of efforts on threatened directions, manoeuvre with fire and reserves in battle are some of the most important.

Very promising for achieving assigned missions, the foreign press source, is the increased mobility of land forces, the wide use of armoured units and formations. Their main use provides the key to victory: solution not only of problems concerning manoeuvre, but also of working out new methods of conducting battles and operations. Western military specialists consider as mobility measures to be in a decisive condition for achieving success in battle, which secures a rapid advantageous change in the balance of forces and equipment on the main line of advance.

The purposes which are being achieved as a result of manoeuvring, also define the conditions required of it. These are that the decision to carry out manoeuvre should correspond to the situation, that the plan be simple, that sufficient forces and equipment be detailed to carry it out and support it, security and flexibility and high speed of fulfilment, accurate cooperation, reliable cover against enemy fires, guaranteed supply and constant maintenance of state control.

The knowledge of these basic demands and their careful use in practice is the true way to success.

The increased importance of manoeuvre in battle and the changed conditions and ways of carrying it out determine the necessity for further theoretical elaboration and practical mastering of these important questions, consolidation of certain concepts with due account of the changes that have taken place in the material base of battle and its pursuit. The forms of manoeuvre deserve special attention.

#### FORMS OF MANOEUVRE

A form of manoeuvre is a way of creating an advantageous grouping of manpower and equipment and securing for it the best position in relation to the enemy for their most effective use. The main forms of manoeuvre in ground combat today, as during the Great Patriotic War, are encircling and turning movements.

It is evident, however, that these forms do not exhaust the entire variety of manoeuvre in modern battle and do not comprise the achievement of the whole number of its primary purposes. Its single form ensures accumulation of efforts in defence and in many cases in the offensive, shifting of efforts from one direction to another in the offensive or the withdrawal from an enemy group. These forms, it seems, should be supplemented with frontal manoeuvre as a method of creating an advantageous grouping for increasing the effort of striking it in another direction or withdrawing it, a method of pulling out own forces from zones of superior enemy forces and creating a more advantageous grouping on a new line.

The main difference between the forms of manoeuvre up till now is that envelopment is carried out in fire and tactical cooperation with the forces striking from the front, while a turning movement is effected only in tactical cooperation with them.

In contemporary conditions as a result of the equipment of forces with missile launchers with a range of scores of kilometres and the considerable increase in the range of cannon and rocket artillery, such a criterion as availability or otherwise of fire cooperation should be constantly taken into consideration. When carrying out an enveloping or turning movement the manoeuvring subunits can and must maintain not only tactical but also fire cooperation with the forces advancing from the front. The only difference may be by what fire weapons this manoeuvre is covered.

An envelopment is carried out within range of tank and anti-tank fire. It is therefore covered by fire of these and other weapons having a corresponding range. A turning movement is carried out beyond the range of tank and anti-tank weapons and can be covered only by long-range fire weapons.

But the main criteria in dividing forms of manoeuvre are not availability or otherwise of fire cooperation but the purpose and depth of the manoeuvre and the direction of the subsequent blow at the enemy. Envelopment is a manoeuvre, carried out by subunits for the purpose of taking an advantageous position for striking at the enemy flank, while a turning movement is a deeper manoeuvre for a blow at the enemy rear (see Figs).

This question is not only theoretical. There is a practical need for a differentiated approach to preparing and carrying out enveloping and turning movements, in particular for organising their fire support, this being the most important condition of success of the manoeuvre, for securing cooperation of subunits and units carrying out the enveloping or turning movement with the forces advancing from the front.

A subject of considerable interest is also the theoretical examination of such questions as support of a manoeuvre with fire and forces, particularly mobile forces, in the main types of combat actions, increasing manoeuvring capabilities of subunits and units, improving the methods of training troops to carry out dynamic actions, readiness for a broad manoeuvre with men and equipment.

In conclusion it is necessary to stress that a skilled manoeuvre is possible only provided one has sound theoretical knowledge and displays a creative approach to fulfilling practical missions. Modern tactical theory is reflected first of all in the manuals. Therefore a firm mastery of the manuals' demands, understanding of their essence, the ability to apply the theoretical clauses creatively with due regard for the concrete situation, the possibilities of the friendly and enemy forces, their tactics—these and other demands concerning the professional training of all commanders are the major criteria for judging of their skill and capabilities to create conditions for carrying out combat actions in any situation.



## GROUND FORCES

### PURSUIT OPERATIONS IN WORLD WAR II DESCRIBED

Moscow SOVIET MILITARY REVIEW in English No 3, Mar 81 pp 38-40

[Article by Col Z. Shutov, Cand. Sc. (History): "Pursuit"]

[Text] The article tells of the experience acquired by the Soviet forces in organising and carrying out pursuit of the enemy during the Great Patriotic War.

On July 3, 1944 during the Byelorussian operation, the forward formations of the 3rd and 1st Byelorussian fronts linked up on the south-western outskirts of Minsk, closing the ring round the 4th and independent formations of the 9th Nazi armies. The encirclement of the enemy grouping, numbering over 100,000, was carried out on the 11th day of the operation at a distance of 200 km from his FERA. Such a task was possible mainly owing to skilful pursuit of the retreating enemy. In this operation the Soviet forces demonstrated their ability to carry out a frontal and parallel pursuit on tactical, operative and strategic scales.

Pursuit of a retreating enemy took place in the most diverse conditions. In 1942-43 and more particularly in 1944-45, operational pursuit was carried out after the forces had negotiated the entire tactical depth and even the army defence zone. This happened as a rule on the 2nd or 3rd day of the operation at a depth of 12-30 km.

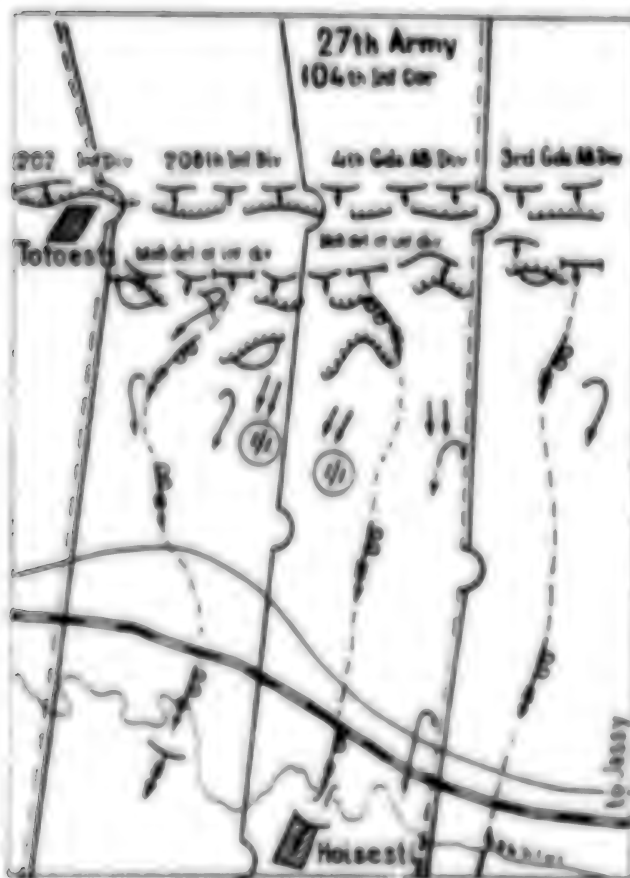
Timely detection of the beginning of an enemy withdrawal promoted speed in passing over to pursuit and success in carrying it out. By the way, it was not easy for reconnaissance to determine the moment of withdrawal. As a rule, the enemy tried to withdraw during the night or in rain, snow or fog. Withdrawal of the main forces was covered by rear guards detailed from each division. Frequently rear guards consisted of motorized and tank subunits capable of launching strong counterattacks and disengaging from the pursuing enemy.

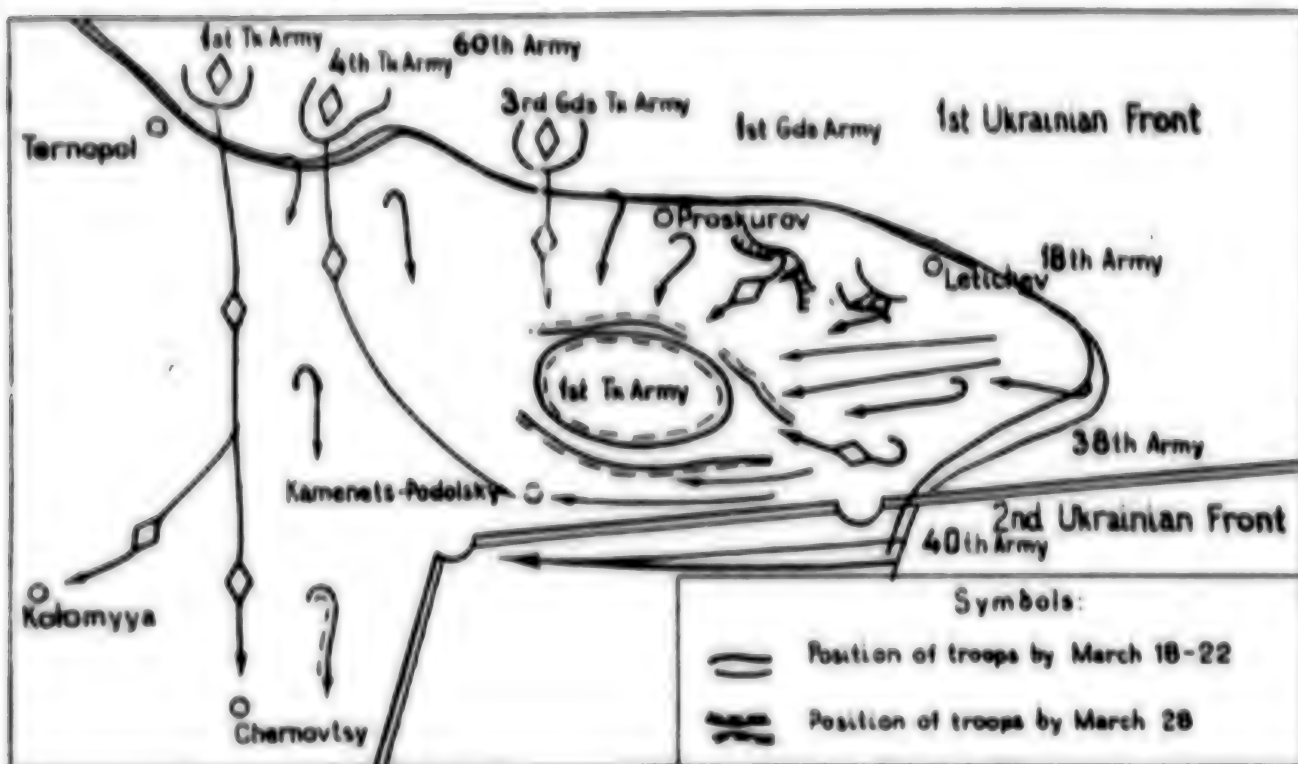
However, stereotyped actions on the part of the enemy were frequent, and this helped the Soviet reconnaissance to determine quite accurately the beginning of a withdrawal. As a rule, that moment was preceded by massed enemy artillery barrages, intensified machine-gun and rifle fire, and illumination of the terrain with flares. Often the enemy undertook counterattacks with up to a battalion (regiment) of infantry and tanks in the zone of a division beginning to withdraw. He did this to give the impression that his defence system was stable and that he was even passing over to the offensive. In some cases the enemy tried to withdraw his main forces unnoticed, without any attempt at diverting attention.

Once they had detected an enemy withdrawal, the Soviet forces would switch over to pursuit in the same battle formation as they had been in during the previous offensive. Usually after the breakthrough of the FEBA mobile groups from combined arms armies (fronts) consisting of tank formations (large units) operated in front of the infantry formations. Possessing higher mobility, greater striking and fire power than the other elements of the operational formation, they were able to pursue the enemy on their own for a long time in the operational and often in the strategic depth.

Tank armies carried out pursuit in one- or two-echelon formation. Tank (mechanized) corps operated generally in two-echelon formation with tank brigades in the

Sketch No. 1





Sketch No. 2

first echelon. By withdrawing the first echelon to the second and vice versa the Soviet Command was able to carry out continuous pursuit. Advanced detachments operated in front of the main forces. Under their protection the main forces of a tank (mechanized) corps usually formed up into columns and operated on lines of advance parallel to the enemy withdrawal.

Tank forces played a leading part in pursuit, but the bulk of the pursuing force consisted of infantry formations. They operated in the tactical depth of the enemy defences. Their pursuit was usually undertaken after the breakthrough of the FEBA for the purpose of capturing the second zone on the move.

Pursuit could be organized in various situations. The main measures were envisaged as early as the planning of the operation. But more concrete organization, assigning the main and additional missions, creating a grouping of men and equipment, sending out advanced detachments and specifying questions of cooperation were all done during the pursuit.

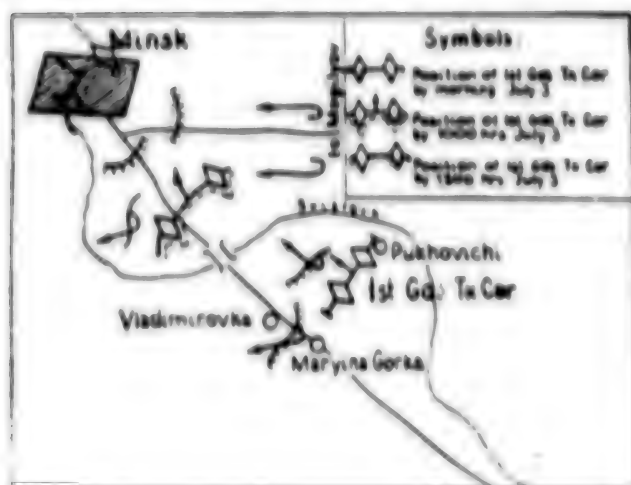
The method and volume of work of the commander and his staff depended on the character of the enemy actions, the state of own units and also on the time available.

Here, for instance, is how the 227th Infantry Division prepared the pursuit in the operation to liberate the Crimea in April 1944. Main attention in preparing the command personnel of the division which was in the 51st Army reserve, was paid to working out questions of unit and sub-unit control when breaking through the intermediate lines

and during pursuit. The divisional staff carried out a training assembly of commanders of regiments, battalions, companies and attached reinforcement units. The officers studied in detail on the map the terrain in the zone of the forthcoming combat operations and character of the intermediate lines on which the enemy could organize a defence. All possible variants of combat actions were played out and exercises on troop control security measures were carried out. Thorough preparation promoted to a considerable extent the successful fulfilment of combat missions by units of the division during pursuit.

Success of pursuit depended to a considerable extent on the actions of the advance detachments. Such detachments acting ahead of the main forces at a distance of 30-50 km captured on the move bridges, river crossings, road junctions and aerodromes, and held them until the arrival of the main forces.

Thus, on August 20, 1944 during the Jassy-Kishinev operation after the forces of the 27th Army of the 2nd Ukrainian Front broke through the first position, infantry divisions committed to action reserve battalions prepared for action as advance detachments (see Sketch No. 1). Mounted on mechanical transport, jointly with the tanks in direct support, they bypassed the enemy strong points and rapidly reached the Bahlui River, forced it on the move and captured a bridge. Having seized centres of resistance in the second zone, they created conditions for a breakthrough of the entire enemy tactical defence zone on the move. This success was due to the advanced detachments fore-



Sketch No. 3

stalling in reaching the second zone not only the enemy subunits withdrawing from the first zone, but also his operational reserves.

When pursuing the enemy in the operational depth the infantry divisions broke into columns and advanced in route formation. When necessary, some of the first echelon forces deployed to negotiate intermediate lines, to beat off enemy counterattacks or to destroy enemy groupings left in the rear of the front or mobile army group. As a rule, infantry divisions were reinforced with artillery, mortars and tanks. This allowed them to destroy strong enemy rear guards and to carry out active manoeuvre operations in wide zones (up to 10-12 km) often without close lateral contact with their neighbours.

Each division of the first echelon sent out an advance detachment usually comprising a reinforced infantry battalion. Such a battalion was mounted on mechanical transport and had an antitank artillery battery, a regimental artillery battery (76-mm guns), a self-propelled artillery battery and a company of combat engineers. When advance detachments had to surmount defensive lines during pursuit, their strength was increased.

Thus, in the 28th Guards Infantry Corps (Vistula-Oder operation, January-February 1945) divisions' advance detachments included an infantry regiment, an artillery battalion, a self-propelled artillery regiment and a company of combat engineers. Acting in such a composition, advance detachments could operate at a distance of up to 10-15 km from the main forces.

Experience showed that to be most effective pursuit must be carried out uninterruptedly. In the Byelorussian operation, for example, pursuit was carried out for 16-18 hours a day. At night the advance detachments and the main forces rested and replenished fuel and ammunition supplies. Meanwhile specially organised detachments car-

ried out combat operations. In the morning they were replaced by the advance detachments.

Manoeuvre with forces and weapons played a significant role. The zones in which the fronts and armies carried out pursuit (from 100 to 400 km and from 20 to 100 km respectively) made it possible to undertake not only frontal but also parallel pursuit of the enemy. The greatest effect was achieved by skilful combination of these two forms of pursuit. Parallel pursuit alone only created a threat to the flanks of the withdrawing enemy and his lines of communication in the rear. Lack of frontal pursuit allowed the enemy to manoeuvre in order to occupy defensive positions on the withdrawal routes.

The Proskurov-Chernovtsy operation (March 1944) carried out by the forces of the 1st Ukrainian Front in cooperation with the 2nd Ukrainian Front (see Sketch No. 2) is an example of successful frontal and parallel pursuit. The Soviet forces carrying it out to a depth of up to 200 km, succeeded in encircling eleven infantry, ten tank, one motorised and one artillery division.

The Soviet units acted rapidly and daringly. Tank and mechanised subunits courageously penetrated into the enemy rear, sowing panic among the enemy troops and disorganising his withdrawal.

Similar actions could be observed in many other operations. For instance, during the Byelorussian operation the 1st Guards Tank Corps, acting in the operational depth of the enemy defences, started pursuing the enemy in the direction of Minsk in the morning of July 3 (see Sketch No. 3). It routed the enemy rear guards, captured a bridge across the Svisloch and seized the junction of the roads connecting Mogilyov and Bobruisk with Minsk. At 1300 hrs the corps broke through to Minsk from the south. During five hours of pursuit with fighting the tanks covered 80 km. Such a high rate of advance was achieved in particular owing to uninterrupted and precise control of the battle by the commanders and staffs, the timely capture of advantageous lines and crossings and continuous reconnaissance on a wide front.

Successful pursuit of the enemy was also achieved by the efficient cooperation of advanced detachments and mobile groups with the aviation. It carried out continuous air reconnaissance and prevented the enemy from withdrawing in order and taking up new defensive positions. Combat aircraft impeded the moving up of enemy operational reserves from the depth. Protection of the pursuing formations from enemy air attacks and delivery of cargoes to mobile groups and advance detachments were also of paramount significance.

The major objectives for air strikes when the enemy was withdrawing were his columns on the roads, troop concentrations in defiles and at crossings, troop trains in motion and at stations. On some occasions air attacks were delivered at bridges and crossings along the routes of the withdrawing enemy forces.

Today the ability to carry out pursuit remains one of the major demands made on commanders and staffs.

## AIR DEFENSE FORCES

### RADAR OPERATOR TRAINING DESCRIBED

Moscow SOVIET MILITARY REVIEW in English No 3, Mar 81 pp 20-21

[Article by Engr-Col A. Polyakov: "Accuracy of Information"]

[Text]

Information on the air enemy, besides being exhaustive and timely, must be accurate in order to allow the commander to estimate the air situation properly, take a battle decision, give the missilemen and fighter plane crews the necessary directions and ensure their cooperation. It is still more necessary for the information to be accurate when one has to deal with a great number of targets and when the enemy creates a diversion or uses jamming.

Accuracy of information depends, in the first place, on the capabilities of radar reconnaissance facilities. However, this is also largely determined by the professional skill and tactical competence of radar operators which, in turn, depends on the training standard of all specialists, first and foremost of radar operators and radar chiefs. Of great importance is concerted actions of crew members and their skillful control by commanders based on deep technical knowledge and proficiency in using combat equipment in different conditions.

From the very beginning of their training radar operators are explained the importance of determining target coordinates accurately. Experienced specialists organise special training in which the "enemy" uses various methods of penetrating the air defences and demonstrate to the trainees how they must act in different combat conditions and



show them visually capabilities of their combat equipment.

In the initial period of training it is advisable to use training facilities. For instance, it is a good practice to have a set of photographs of radar screens with target blips on them. One of them is shown for a while by means of an Eidiascope and a radar operator begins to plot the coordinates observing the established rules (from the screen centre and from the main directions). Special simulators are used to enable the trainees to perfect their skills.

Radar operators' training is devoted mainly to practical training on the operating equipment. In order to make the training more effective the commanders think over the dynamics of each lesson and the development of the situation, trying to make it more instructive. Plans for such training are worked out by experienced methodologists and officer instructors. Analysing previous training, they give recommendations on how to eliminate the mistakes made by the trainees. In their work they proceed from the experience accumulated, the operators' training standards and the smoothness of crews' work.

Training practice is based on gradual complication of the missions assigned. This is necessary because a young radar operator is liable to make mistakes in a difficult situation if he has not had enough practice. This would adversely affect his psychological readiness to fulfil his mission. As a result, the so-called uncertainty barrier may arise.

An indispensable condition to be observed when elaborating training plans is to bring them as close as possible to real combat conditions. Working up variants of military operations and their main components promotes this. The variants envisage as a rule radar operators working in various air situations as regards the forces and equipment used by the likely "enemy," his tactics and also the specifics of the position occupied by the target detection and tracking subunit and the capabilities of its equipment.

To obtain accurate target coordinates, it is necessary for all assemblies and units of the radar station to be tuned properly. At the very beginning of training the radar operators must be taught to remember the specifics and configurations of the local features echo. During training they must develop their ability to perform without a hitch all the necessary adjustment, switching and tuning operations. They also must be taught how to manipulate the controls "by touch" since this will help them not to distract their attention from determining the coordinates when performing tuning or some other operation.

Experienced instructors use the following method for training radar operators to cope with their mission when target blips are weak. First radar screens imitate bright and stable target blips and then increase their number and weaken them until some of them even disappear for a while. The trainees also master the technique of selecting scanning brightness properly and shifting indicator tuning controls so as to provide the most favourable conditions for plotting the coordinates. High-class specialists can supply accurate characteristics. Practice shows that if radar operators can work perfectly on a simulator they will be successful in plotting the coordinates of actual targets.

Target characteristics given by the radar operator must be appraised objectively from the point of view of precision. Only such an approach will give a true picture of his work, making it possible to reveal his defects and how to eliminate them.

The radar chief must check the accuracy of the information received from radar operators. He must thoroughly analyse their actions and the sequence of their operations and also be ready to give them the necessary practical help or advice.

To check the accuracy of target characteristics supplied by radar operators, wide use is made of a photographic record and of simultaneous operation of two teams spotting and tracking the same targets. In such cases experienced operators usually work in pairs with young ones. After the training is over, the results thus obtained are compared, photographic records are studied and the accuracy of radar information supplied by each operator is checked. The causes of erroneous coordinates which may be presented by some trainees are thoroughly analysed, this helping to make timely corrections to the training process and to use training time more effectively.

The work of the CP personnel is exceptionally important in supplying the subunits with accurate information. It is there that the most reliable data is selected and rational use of radar equipment is organised. The commander sets each radar crew a task specifying the most reliable sources of information. He analyses the work of his subordinates by using photographic records, takes measures to remove the faults detected and to ensure target tracking in a suddenly changing situation. All this requires the CP commander and his officers to know exactly the capabilities of their radar stations and to use them skilfully in order to obtain target data.

As we know, a single radar crew may sometimes be unable to supply accurate target data because the intensity of the echoed signal depends on the relative positions of the target and identification aids, the size of the reflecting surface, the conditions of magnetic energy propagation and so on. Therefore the commander must know for sure which radar station supplies the information, how it is positioned relative to the target and at what distance. This will help the commander to select the most exhaustive and accurate information.

A high tactical training level of all specialists, especially those of officer rank, substantially contributes to obtaining accurate information. Radar subunit commanders' ability to estimate the air situation quickly, to analyse it competently and to foresee the likely changes of target attitude is developed mainly on the basis of extending their knowledge and improving their practical skills. And practical training is the main method for raising specialists' tactical and professional skills. Officers undergo this training according to a special plan. Being trained in a complicated and instructive situation the officers polish up their skills in target track reference, determine the difference in target track data supplied by various radar stations and improve their skill in troop control.

To make radar information more precise is a most important task facing radar subunits. Therefore they continuously search for new ways and means of getting the most out of their combat equipment and show tenacity in mastering advanced techniques for conducting radar reconnaissance.

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## NAVAL FORCES

### SONAR OPERATOR TRAINING ON AN ASW SHIP

Moscow SOVIET MILITARY REVIEW in English No 12, Dec 79 p 25

[Article by Engr-Capt 1st Rank A. Galkin, Cand. Sci. (Navy): "A Ship's Underwater Battery Crew"]

[Text]

**T**he underwater battery crew of a submarine-hunting ship forms the basis of its fighting efficiency. Such a crew actually controls the ship when searching for and destroying an underwater target.

The ship's CO directs the underwater battery crew's efforts in battle.

In his work he is greatly assisted by his executive officer who provides cooperation between the action stations supplying the CO with target data after they have been processed. Generalising such data the executive officer reports the specifics of target manoeuvring and its motion characteristics to the CO.

The fire control officer is to display the highest activity compared to the other members of the underwater battery crew. Operating together with the radio officer and the navigator he performs all tactical calculations required by the CO. As soon as the underwater target is detected, the fire control officer switches over to supervise the operation of the central fire control station. He also takes part in the preparation of the anti-submarine weapons for use and reports firing data to the CO.

The tasks that involve determining target motion characteristics and the specifics of its manoeuvres are usually carried out by the ship's navigator and the combat information centre.

To carry out search operations, identify a contact and also to pursue and destroy an underwater target, the concerted action of several action stations and different specialists is necessary. Success in handling these tasks can be gained provided each specialist possesses a high training standard.

Each member of the underwater battery crew must have a sound knowledge of his action station. Particular attention should be paid to the training of a sonarman because the destruction of an underwater target largely depends on his ability to detect it in good time, to identify and maintain a contact and to supply the navigator and the action stations with the information which would enable them to determine target motion characteristics (course, speed, depth).

With the increase of sonar range, target identification in antisubmarine warfare has become a problem requir-

ing much effort in order to be solved. Sometimes it is really not so easy to distinguish between the actual target and some foreign object or a school of fish. Therefore, in training sonarman particular importance is attached to their ability to identify a contact exactly as a result of comparing what is most characteristic of different underwater objects and of a submarine.

For instance, if contact identification is incorrect, this may cause the ship's CO to use weapons against a false target (a school of fish, underwater rock, wreck) or, on the contrary, to take a submarine for a false target.

The underwater battery crew must also do their best to reduce target identification time as much as possible. To attain this, all the action stations of the crew act in concert.

Sonarman acquire practical skills at their training stations, which are abundantly provided with training facilities, including tape recordings reproducing echo signals, noises of atomic submarines and surface ships and fish noise in different hydrological conditions. The modern equipment of classrooms makes it possible to simulate situations closely resembling real ones which are usually experienced by the underwater battery crew at high seas. Those of the sonarman and the other crew members who are not to participate directly in a training lesson are usually ordered to the demonstration room to watch the other trainees at work and to analyse their actions.

Sonarman are trained simultaneously with the crews of the other action stations which also participate in contact identification and in the preparation and use of antisubmarine weapons. These joint training sessions are usually supervised by an executive officer who checks to see at each training stage that the trainees strictly observe the specified priority of operations, make perfect reports, supply accurate data and, in general, perform all training elements.

After they have acquired the initial skills in discharging their duties the underwater battery crew begin to polish up their teamwork. The crew's concerted actions are aimed at providing contact and cooperation between the action stations and, in the first place, between the ship's CO, on the one hand, and the sonarman and the

other action stations, on the other. The trainees master the technique of reporting, paying particular attention to its priority and also practise giving commands and orders. The complexity of the missions is gradually increased.

During the subsequent training period the crewmen practise restoring the lost contact and maintaining it when they have to change a position of submarine tracking. They also work up the technique of tracking a manoeuvring submarine, taking up positions for firing different antisubmarine weapons and, finally, how to track and attack a manoeuvring submarine when it is using sonar countermeasures and deception.

A well-organised post-training critique plays a very important role in the training of the underwater battery crew. At the beginning of a critique the ship's CO usually hears the sonarman, the navigator and the fire control officer reporting on their actions when searching, tracking and attacking the submarine. Illustrating his remarks by a series of manoeuvres performed both by the ship and the target he thoroughly analyses and assesses the activities of each crewman.

Competitions for the title of the best specialist among sonarman, miners and other crewmen are being organised on an increasingly large scale in the Navy today. Whenever on a cruise, a ship has to pass through the training range which makes it possible for its underwater battery crew to train daily.

The main principle followed by a ship's CO and his teaching staff in training officers and ratings both at base and at sea is to teach them what is needed during a war. Only when this principle is used as a basis can the underwater battery crew achieve the required teamwork and close cooperation.

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## NAVAL FORCES

### DAMAGE CONTROL TRAINING DESCRIBED

Moscow SOVIET MILITARY REVIEW in English No 3, Mar 81 pp 24-25

[Article by Capt 1st Rank M. Tsiporukha: "Damage Simulation on a Ship"]

[Text]

**T**raining in damage control is an integral part of the general training of a ship's complement. It includes study of the ship's design and its damage control facilities, acquisition of initial practical skills, practice in action station, command post and damage control party procedures during exercises.

To approximate the situation as much as possible to real battle wide use is made of damage simulation facilities during damage control exercises. Simulating fires, penetration of outside water into compartments, and damage to weapons and equipment helps to train the men psychologically for confident action in a naval encounter.

It is not always possible to use all simulation facilities on a ship, so combat training stations are provided on shore. They have compartments similar to those on a ship and in which fires, flooding through a "hole" in the hull or a "damaged" pipeline can be simulated.

The majority of damage control drills and exercises take place on the ship itself. To simulate hull damage, use is made of special panels comprising a steel plate, a flooding chamber and a mounting frame. Each panel is provided with a set of detachable plates with various holes and cracks. Water is supplied through a fire hose connected to a special pipe in the flooding chamber, from which the water is drained by another pipe when pressure in the panel increases as the hole is gradually sealed.

Pipeline damage is simulated by means of a pipe one end of which is welded up and the other is joined to a fire hose. The pipe has holes and cracks of different sizes and can be fastened on suspensions at different places.

The above mentioned simulation facilities are arranged in compartments where inflowing water cannot cause a failure of the equipment, e.g. washrooms, shower-rooms, holds in engine and boiler rooms, or in cofferdams and ejector recesses. It is most important that the places where simulation facilities are installed are provided with drainage or overflow ejectors.

Special attention is paid to water control in compartments. The locking device to shut off water supply to the panel is checked in good time and steps are taken to keep water away from the electrical equipment and fuel and oil tanks.

Training in extinguishing big fires usually takes place on

shore, on special fire ranges. To simulate fire on a ship, use is made of trays with the edges bent up 100-150 mm installed on supports. A layer of oakum or waste soaked in waste oil or diesel fuel is put on the tray to be ignited. To enhance the effect of fire, smoke pots may be placed near the tray.

These facilities are arranged on the upper deck with wind direction and the ship's course duly taken into account. If the deck is a wooden one, an asbestos mat should be placed under the tray.

To simulate a fire inside the ship, use is made of a "fire starter" provided with an electric primer. When the power is turned on, a paraffin-saturated wood-fibre board placed in a metal case is set on fire. Burning goes on for about 15 min.

Fires on a ship may be simulated only in places stipulated in the formation commander's order. It is forbidden to use smoke pots or naked flames when simulating fire at the entrance to the ammunition room, near the ammunition room mushroom ventilators, close to ready service lockers, fuel and oil tanks, their air pipes, in paint, boatswain's and provision stores, and also near the only exit from a room.

Fire-fighting equipment, including at least 1-2 fire hoses and 3-5 fire extinguishers, is concentrated on the training sites. It is available to the person responsible for simulation and may be used only with his permission.

Facilities for ventilation of compartments intended to be smoke screened are checked in good time to enable them to be used in training to put out the "fire source." Portable fans are also prepared in advance.

To simulate explosions, special smoke-puff charges are used. Some of them produce both sound and luminous effects whereas others only a sound effect. Bright flashing smoke-puff charges are painted red and bear the inscription: "Sound, flash, compartment, deck" or "Sound, flash. Only upper deck." This means that the former may be used both on the upper deck and inside the ship, the latter only on the upper deck. Smoke-puff charges producing a sound effect are also painted in different colours and bear instructions for use.

It should be borne in mind that it is dangerous to work near smoke-puff charges ready for use.

A special device mounted on a stand is used to simulate burning wiring. A cable wrapped in waste soaked in kerosene is placed with a smoke mixture in a canvas hose. The device terminals are connected to an arc-welding machine. Energising the device ignites the waste. The device works for 1.5-2 min.

In practising actions for putting out the burning wiring, carbon-dioxide fire extinguishers are used. Use of water and of foam fire extinguishers is allowed only after the simulation facilities have been disconnected from the power source.

Prior to cutting off the lighting in a compartment to simulate its failure, care should be taken to check serviceability of the engine emergency lighting and battery lamps.

When simulating damage to equipment, those faulty parts are substituted for serviceable ones, e.g. valves in radio equipment. If, for some reason or other, the proper equipment fails, e.g. in the case of ventilation, ventilation and heaters of the mechanical control equipment, spare units are placed under the control of those parts.

In simulating failure of measuring equipment, it is prohibited to pick up glasses of instruments whose readings cannot be checked due to absence of a reference instrument, which is, for instance, the case with auxiliary engine-governor units, where only one oil pressure gauge is installed.

During exercises of the "faulty" mechanisms must be ready for use at any moment. This applies in the first place to fire pumps, tubing and diesel generator sets, damage cranes, and air compressors.

In group exercises or when sailing in harbor, it is forbidden to put control instruments of the steering gear "out of action." Nor is it allowed to actually cut out the ship's inter-communication system. For example, when telephone or megaphone failure is simulated, when a call comes through one should pick up the receiver and reply: "Action station No. 10. Communication facilities out of action." When failure of equipment is reported the damage should be preceded by the word "in action last."

Uncontrolled use of simulation facilities may result in actual breakdown of weapons and equipment, fire and flooding of some compartments. Therefore, damage simulation on ships is carried out in strict compliance with a special plan drawn up well in advance simultaneously with the plan of the ship's exercises and approved by the exercise director. The plan shows the time of the beginning and end of use of the or that simulation facility, what simulation what equipment and method used, and safety measures to be taken.

The department head is warned well in advance when some simulation is to be used at his action station. The most proficient officers, sailmakers and mechanics are generally made responsible for the simulation. They must be ready to replace damaged control stations are worked up and ready to check compliance with the safety regulations.

After the exercises, when when simulation facilities have been used are thoroughly inspected to eliminate possible causes of fire, flooding, etc.

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## MILITARY SCHOOLS AND ACADEMIES

### LENIN MILITARY-POLITICAL ACADEMY'S 60TH ANNIVERSARY

Moscow SOVIET MILITARY REVIEW in English No 12, Dec 79 pp 3-8

[Article by Lt Gen V. Danilov: "A Political Personnel Training Centre"]

[Text] In December 1979, the Orders of Lenin, the October Revolution and the Red Banner Military-Political Academy, named after Lenin will mark its 60th anniversary. Lieutenant-General V. Danilov, Chief of the Academy's Political Department, Hero of the Soviet Union, talks about its history and the present day organization of training and scientific research work.

Moscow, 14 Bolshaya Sadovaya Street is the address of the Lenin Military-Political Academy. This military establishment trains leading political workers, military instructors and journalists of high qualification from among the officers of the USSR Armed Forces. The Academy is also a centre of scientific research work in the field of social sciences and a number of military subjects.

When creating a socialist army of a new type, V. I. Lenin and the Communist Party took into consideration the fact that the young Red Army needed political workers who in close contact with the commanders would be engaged, first and foremost, in military training and political education, in organising cultural and educational work among soldiers and sailors, and in strengthening military discipline.

Later in 1919, on the basis of agitators' courses in Petrograd (now Leningrad) a Teachers' (military-political) Institute of the Red Army named after Tolmachyov<sup>1</sup> was opened. On May 14, 1925, the Institute was transformed into the Military-Political Academy. The Academy was assigned the mission of training political workers with a higher education for the Armed Forces.

A decision of the Party Central Committee

<sup>1</sup> A. A. Tolmachyov is a commander of the Red Army, recipient of the Order of the Patriotic War and other military decorations.

"On Command and Political Personnel of the Workers' and Peasants' Red Army" taken in February 1929, played an important role in the life of the Academy. It defined the trends of the further development of the Academy in training and educating the officer-students. Paramount importance was attached to the combination of study of social sciences with all-round military training. The time allotted for mastering military subjects had increased accordingly. The command practice (a probationary training period) in the forces was introduced. The students studied at the following faculties: a combined arms faculty, an Air Force faculty, a Naval faculty and a military-pedagogical faculty.

On January 11, 1938, the Academy was named after Vladimir Ilyich Lenin. It was transferred from Leningrad to Moscow that same year.

From the very first days of the Great Patriotic War (1941-45) the Academy reorganised its activity in conformity with new tasks. The term of the study was reduced. The number of officer-students increased several times.

During the first six months of the war it trained several thousand political workers for the front. All in all, over 12,500 men passed through its halls during the war. Political workers, graduates of the Academy, distinguished themselves as skillful organisers of the political

education of the Soviet fighting men, and provided examples of courage and staunchness in fighting the Nazi invaders.

Major V. Markushev, an officer-student of the Academy, particularly distinguished himself during the Battle of Kursk in 1943. Flying a fighter aircraft he personally shot down 29 enemy planes. He was awarded the lofty title of Hero of the Soviet Union.

In the grim year of 1941, Battalion Commander M. Artyukhov, together with a group of officer-students of the Academy went to the front. He traversed the hard roads of the war all the way to Berlin. Before the final storming of the Nazi capital Lieutenant-Colonel M. Artyukhov, Chief of the Political Department of the 150th Infantry Division, handed the Red Banner of the Military Council of the Army to reconnaissance men Sergeant M. Yegorov and Junior Sergeant M. Kanteris, who hoisted it over the fallen Reichstag as the Banner of Victory.

Over 150 students of the Academy were honoured with the high title of Hero of the Soviet Union, over 100 men were appointed to the grade of generals and admirals.

During the war the teaching staff of the Academy did considerable work in generalising and propagandising the experience of Party-political work accumulated in the forces.

In connection with the ever growing demands in cadres of the political workers, in June 1943 the Academy was transformed into the Higher All-Army Military-Political Courses of the Main Political Administration of the Workers' and Peasants' Red Army with a one-year term of study, and in 1947 the Courses were again reorganised into the Lenin Military-Political Academy. The first postwar graduation took place at the Academy in 1949. This year marked the Academy's 56th graduation ceremony.

In the postwar period deep qualitative changes caused by the scientific and technological revolution in the art of warfare took place in the Soviet Armed Forces. In this connection more complex tasks arose in training political workers of higher qualification which left its imprint on the activity of the Academy. From the 1956-57 academic year the Military-Political Academy began to train teachers of social sciences for higher military educational

establishments and military lawyers. The number of specialised faculties increased substantially. Extramural and academic courses were organised which are training anew the leading political personnel of the Armed Forces and teachers and instructors for military schools.

Today the Lenin Military-Political Academy has a large and highly qualified teaching staff, more than 60 per cent of them having scientific degrees. Over 30 doctors of sciences and professors work at the Academy. At faculties of the social sciences 35 per cent of the teaching staff are candidates of sciences and assistant professors. Over 100 professors and teachers and permanently assigned personnel are veterans of the Great Patriotic War. Among them are Heroes of the Soviet Union Major-General V. Zdunov, Colonels V. Yevdokimov, Ye. Sukharev and others.

The basis of the process of instruction consists in studying social sciences such as: the history of the Communist Party of the Soviet Union, Marxist-Leninist philosophy, political economy, scientific Communism, and the history of the International Communist Workers' and national-liberation movement. Party-political work, military pedagogics and psychology occupy an important place in the curriculum. The officer-students also study the organisation and structure of the forces, ways of combat employment of various armed services of the Armed Forces and fighting arms in modern warfare and also the latest means of armed struggle. Lectures on the history of military art are being delivered to the students.

Excellent training facilities are provided: well-equipped laboratories, classrooms and a training centre. The Academy has a large book stock, many reading halls, a study of Marxism-Leninism, special classes on different armed services of the Armed Forces and combat equipment.

The main stress in the training of the officer-students is made on developing an ability in them to acquire by independent and persistent labour the firm and deep knowledge necessary for a political worker of today.

The officer-students perfect and consolidate the theoretical knowledge they acquire during the field exercises which are carried out with due regard for the practical experience of training and education accumulated in the



forces. The military training of the men is closely coordinated with the organisation of Party-political work in the army and navy. During the term of study they undergo practice as deputy chiefs of political departments, deputy commanders of units and ships for political affairs, propagandists and teachers of social disciplines at the higher military-political and other schools.

During the last five years from 1974 to 1979, the Academy graduated several thousand political workers and military instructors. Among its graduates are pilot-cosmonauts of the USSR Ye. Khrunov and V. Zholobov. Today its graduates occupy many leading posts in the Soviet Army and Navy. All members of military councils — chiefs of political administrations of military districts, groups of forces and fleets, nearly all chiefs of political departments of formations, over three-fourths of the deputy regiment (ship) commanders for political affairs and the equivalent units — are graduates of the Academy.

The Lenin Military-Political Academy renders great assistance to the armies of the countries of the socialist community in training political personnel of high qualification. A number of officers of the fraternal countries studied here. They successfully use the knowledge they received at the Academy in their practical work.

For its great services in training the cadres of the political workers for the armies of the socialist countries and its contribution to the propagandisation of the Leninist theoretical legacy the Academy was awarded the Orders of the People's Republic of Bulgaria, the Hungarian People's Republic, the Socialist Republic of Vietnam, the German Democratic Republic, the Mongolian People's Republic, the Czechoslovak Socialist Republic.

The Academy is a large scientific and theoretical centre of the Soviet Armed Forces. From

1939, when the defending of theses was begun at the Academy, by 1976 over 1,700 candidates and over 120 doctors of sciences have been trained.

Scientific-research work of the Academy includes political and military themes and is directed at examining the ideological military and theoretical legacy of Vladimir Lenin, the activity of the Communist Party concerning the

creation and strengthening of the Soviet Armed Forces, as well as the methodological problems of military theory and practice and questions of Party-political work in the army and navy.

The scientists of the Academy wrote many scholarly works. Such works as "Vladimir Lenin and the Soviet Armed Forces," "The CPSU and the Construction of the Soviet Armed Forces," "Marxism-Leninism on War and the Army," "Methodological Problems of Military Theory and Practice," "Philosophical Legacy of Vladimir Lenin and Problems of Modern Warfare," works on the theory and practice of the Party-political work and others are generally recognised in this country and abroad. Great attention is paid to the scientific research work in the field of military pedagogics and psychology.

For the last ten years over 50 scientific works written by the Academy's teachers have been translated into foreign languages. Eighty per cent of the officer-students are actively participating in the circles of the military and scientific society. The scope of actual theoretical investigations connected with the further enhancement of the combat readiness of the Soviet Armed Forces continues to broaden.

By training highly qualified cadres of political workers, military instructors and journalists, the Lenin Military-Political Academy is making a worthy contribution to the further strengthening of the army and navy.

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## PERCEPTIONS, VIEWS, COMMENTS

### COLONEL RYBKIN COMMENTS ON WESTERN MILITARISM

Moscow SOVIET MILITARY REVIEW in English No 12, Dec 79 pp 45-47

[Article by Col Ye. Rybkin, D. Sc. (Philosophy), professor: "Apologists of Militarism"]

[Text]

**M**any facts and developments in the world arena are indicative of the continuing struggle between two trends in the development of the international situation — the trend towards the furthering and consolidation of détente and the strengthening of peace and the trend towards the subversion of détente and rolling back of mankind to the cold war period.

The latter half of the 1970s was marked by outstanding events of great complexity on the international scene. The socialist countries made steady headway, the peoples of Africa, Asia and Latin America scored new victories in their fight for national liberation and social emancipation and the working people of the capitalist countries stepped up the class struggle.

At the same time this was a period, when the most reactionary forces of imperialism, the munitions manufacturers and promoters of the cold war joined hands in a broad campaign against détente, disarmament and the fight for liberation. Even today they have been making reference to the non-existent Soviet threat, demanding further appropriations amounting to thousands of millions of dollars for military purposes, for the development of increasingly destructive types of weapons. They have been resorting to force to suppress the liberation movements of nations and have been interfering in the internal affairs of other countries.

The contention between détente and antidétente has been manifest in the sharpening ideological struggle between the two opposite social systems. The exacerbation of the struggle was no extraordinary development. The ideological struggle is a law-governed form of class struggle. And as the 25th CPSU Congress put it, détente does not abolish, nor can it abolish or alter the laws governing the class struggle.

The historical optimism of Marxist-Leninist ideology is based on the knowledge of the laws governing the development of society. These laws condition the need and possibility for removing world war from the life of society. In their foreign policy the Soviet Union and the other countries of the socialist community firmly adhere to the strategy of peace proclaimed by Vladimir Lenin.

The practical experience accumulated in the postwar decades has revealed the complete superiority of the peaceful ideology of Marxism-Leninism over the bourgeois ideology of war and aggression, with anti-communism forming its core. The anti-communists are casting aspersions on the socialist system, they have been misrepresenting the policy and aims of the Communist Parties and the doctrine of Marxism-Leninism. Anti-Sovietism is an important form of present-day anti-communism. Its purpose is to concentrate the efforts of bourgeois ideologists on discrediting the Soviet Union with a view to winning over its natural allies to their side.

There was a time when bourgeois ideologists proclaimed the concept of "de-ideologisation" in a bid to use the slogan of "weakening" and even "discontinuing" the struggle of ideas to sap the growing influence of Marxism-Leninism on the world public. However, the advancement of this concept by imperialist ideologists failed to produce the desired results. That was why they were pleased to support the line for "re-ideologisation" which had been proposed by Zbigniew Brzezinski, present leader of anti-Sovietism.

"Re-ideologisation" essentially boils down to the abandonment of slogans for "softening" or "disconti-

nuing" the struggle of ideas and to switching over to the tactics of "direct attacks" on socialism and its ideology.

The adherents of this line will not shrink away from any means that will help them in casting slurs upon socialism, in distorting its policy and practices. They have resurrected the outdated myths about the "export of revolution" and the "threat of war" that stems from the Soviet Union and the other Warsaw Treaty countries. At the same time the theorists of militarism have refurbished their ideas about the eternal and even beneficial character of wars that can never be removed from the life of society.

Militarism is an extremely complex phenomenon. It covers and pervades all spheres of life of bourgeois society from the economy to culture. It comprises a system of forceful means for the ensurance of the interests of the capitalists. In the sphere of ideology militarism manifests itself in two basic forms — primitive psychological and theoretical.

The former is intended for the consumption of the masses. It is based on the use of primitive methods of misinformation. Lies and slander addressed to the "man in the street" in the capitalist countries play a big role in this. The aggressive forces of imperialism and its apologists have been trying to make it appear as if "detente has lulled NATO," whereas the Soviet Union and its allies intend "to invade the Western countries." They contend that it will take the USSR and its allies only 48 hours to "reach the Rhine" and "two weeks to get to the Atlantic coast." As a rule, these quarters only voice their inventions about the "aggressive" character of communism without providing any proof.

Marxism-Leninism has never hinged the victory of socialism on world war. On the contrary, socialist ideology states that socialism is to remove war from the life of society once and for all. The more destructive the wars the greater the determination displayed by the countries of the socialist community in working for this noble goal.

The other so-called "theoretical" form of militarist ideology comprises various "theories" and special investigations designed to oppose Marxism-Leninism with their own bourgeois doctrines about the causes, essence and historical role of war and ideologically to substantiate the military doctrines of the imperialist states. The long-standing aim of such struggle in the theoretical field is to prove that wars are not conditioned by private ownership, that they are not rooted in the nature of capitalism, but that they are due to a whole range of factors which make them inevitable.

It is possible to single out several lines in the development of militarist doctrines. The first of these is the psycho-biological line which seeks to justify wars by the far-fetched idea about "aggressive human nature."

That these concepts are unsound is obvious. First, attempts to present man's intellectual activity as instinctive and unconscious result in the denial of one of man's main features, namely his consciousness and self-consciousness. Karl Marx and Frederick Engels pointed out that ever since man appeared he differed from animals in that consciousness replaced instinct or that he was conscious of his instinct. Second, if the masses sometimes really favour war and even spontaneously take arms in hand, their actions are not guided by instinct, but are conditioned by profound socio-economic and political causes (mainly by the use of force by the ruling cliques, the calamities and suffering experienced by the masses) which give rise to the pertinent psychological response and make them conscious of the need for waging an armed struggle.

Irrationalistic theories form a peculiar branch of psycho-biological theories of war. These theories mainly ascribe wars to "mysterious" "incognisable" causes. Werner Picht, the West German military historian, is an eminent representative of the irrationalistic line in bourgeois thought. He described war as a "phenomenon in human existence which is most difficult to cognise." The irrationalists say that it is utterly impossible to establish any effective control over the forces that lead to the outbreak of wars. From the standpoint of theory these concepts are self-defeating, because reference to incognisability is by no means scientific proof. It denies the possibility of scientific knowledge. However, from the standpoint of the ideological struggle the irrationalists find it highly advantageous, because it helps prepare people for war.

Concepts connected with the scientific and technological revolution constitute an important line in the current evolution of bourgeois doctrines about the causes and essence of war. The advocates of these concepts assert that the rapid development of technology causes man to be dominated by it and prompts him to employ technical equipment for purposes of war. However, these authors prefer to keep silent about a factor of cardinal importance, namely that not every man, not every class and not every government are interested in using technological achievements to prepare for war. It is only the exploiting classes that are interested in this. Their desire for the use of force and for aggression stems from their social nature. The broad masses of people in general, the masses of working people in particular, and genuinely people's governments resolutely reject such a policy, because it is alien to them.

The further modernisation of the neo-Malthusian doctrine forms another area in militarist theories. Its proponents see a threat of war in the present "demographic eruption" currently observed in the developing countries. They have made an attempt to generate fear in the Philistine with their references to a future "invasion" from the expanses of Asia, Africa and Latin America.

In this context it should be pointed out that there is no direct connection between the growth of the population and war. Relative overpopulation is the result of inadequate supply and uneven distribution of the means of subsistence. These phenomena in turn are rooted in social causes. The appearance of relative redundancy in the population which in the past was responsible to a certain degree for invasions by nomadic tribes was conditioned by the aggravation of the contradiction between the character of production and consumption in an exploiting society. The unfortunate masses that were deprived of adequate means of subsistence at home became recruits in an army carrying out expansion under the guidance of a ruling "well-to-do" class. Redundant population was never the primary cause of plunder and conquest. The primary cause of this has always been and continues to be the policy of the ruling clique in exploiting society.

In referring to such theories Vladimir Lenin wrote: "Nothing is easier than to tack an 'energeticist' or 'biologico-sociological' label on to such phenomena as crises, revolutions, the class struggle and so forth; but neither is there anything more sterile, more scholastic and lifeless than such an occupation." Lenin pointed out that wars were rooted in the very essence of capitalism.

The ideologists of militarism have spared no effort to provide ideological and political substantiation for war against the USSR. They have justified in every possible way and given ideological support to all the military doctrines of the USA and NATO, starting with the theory of "massive retaliation" of the 1950s and ending with the present doctrine of "realistic deterrence."

However, all their attempts ideologically to substantiate an atomic-air and later a nuclear missile imperialist blitzkrieg against the USSR, all their attempts to combine the threat of total nuclear war against the socialist world with local wars and subversive activities have proved futile. It is not fortuitous that the more sober-minded Western ideologists have frankly stated that a nuclear war on a world scale will hardly bring victory to imperialism. It is precisely this realisation that caused some of the leaders of the top imperialist powers to sign treaties that inaugurated détente.

It is only fair to say that not all Western social scientists are in the service of militarism. Far from it. Not all of them justify war and the efforts of the military-industrial complex to prepare for war. The law-governed process of world development has prompted Western scholars to reckon more and more with the political theory and practice of Marxism-Leninism. This logic imperatively calls for cooperation of states belonging to

different social systems. It requires that scientists and scholars cooperate in the solution of global social problems, such as those bearing on the preservation of peace, disarmament, rational utilisation of the natural resources of land, the World Ocean and space exploration.

Such cooperation is gradually making progress and the International Political Science Association is promoting it. In the middle of August 1979 the 11th World Congress of the IPSA was held in Moscow. It was attended by 1,500 Soviet and foreign scientists from every continent. It is worth noting that the first theme it examined was the "Policy of Peace." The discussions on it were fruitful. They showed that the Leninist principles of peaceful coexistence, the USSR's unflinching peace effort and the scientific fundamentals of the CPSU's foreign policy aimed at achieving détente and at removing wars from the life of society have won great prestige in the world.

Despite this, the militarists are sparing no pains in urging the USA to attain military superiority over the USSR. The propaganda campaign flared up with particular force before the NATO session in December in Brussels where the USA hope to impose on their bloc partners plans to deploy up to 600 US medium-range nuclear missiles in Western Europe. The implementation of this plan would upset the balance of forces between NATO and the Warsaw Treaty Organisation now observed on the European continent.

In order to avert another upward spiral in the arms race, to preserve and augment the gains and achievements of détente and peaceful cooperation, the Soviet Union expressed its readiness to reduce the number of medium-range nuclear weapons deployed in the western part of the country, proposed to begin negotiations on mutual reduction of these forces in Europe.

The interests of peace and security demand concentrated efforts in fighting against outspoken apologists of thermonuclear war on a world-wide scale and against all and sundry ideological sallies designed to gain military superiority by the imperialists.

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At present the ideology of militarism is in the grips of a grave crisis. At the same time it would be wrong to underestimate its danger. L. I. Brezhnev said:

"Militarism cripples not only the society that has produced it. The exhaust gas emitted by the war-preparation machine poisons the political atmosphere of the world with fumes of hatred, fear and violence."

Therefore, the efforts to prevent the further spreading of the "exhaust gas" of militarist ideology is a vital task in the class struggle of socialism in the international arena.

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## PERCEPTIONS, VIEWS, COMMENTS

### LENIN'S VIEWS ON PURPOSE AND ESSENCE OF ARMED FORCES

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[Article by Col V. Aidarov: "V. I. Lenin on the Essence and Purpose of the Army"]

[Text]

The history of military science is more than three thousand years old. Armies appeared when the slave-owning exploiter state system was formed as a weapon in the hands of the ruling classes for capturing slaves and keeping them in submission. The organisation, armament and methods of warfare of such armies have been studied thoroughly enough.

In the past the majority of researchers studied the purely military side of the use of armies, i.e. focussed their attention primarily on military matters. Only K. Marx, F. Engels and V. Lenin studied the armed forces from the point of view of their purpose and the role they played in the state structure and also the mode of production which fostered both the state and its army. They explained scientifically the causes of the appearance of the army and of its function — to serve as an instrument of the internal and external policies of the ruling classes. Their thoughts about the necessity after the victory of the revolution of breaking up the old army, which is a weapon of oppression in the hands of the exploiters, and replacing it with a new military organisation capable of defeating the counter-revolution are still of immense scientific and practical value.

Before V. I. Lenin Marxists held the view that an army as a standing force would not be necessary in the socialist state. They believed that in the process of socialist revolution the bourgeois army would be replaced by a general armament of the people, a socialist militia. Such a conclusion was based on the possibility of a simultaneous victory of the socialist revolution in all or most of the developed capitalist countries.

However, in the epoch of imperialism V. I. Lenin studied the problem of the forms of the victorious proletariat's military organisation from a new angle. He substantiated the necessity for creating a regular socialist army. In this V. I. Lenin proceeded from the objective laws of class struggle against the bourgeoisie both inside and outside the country in the epoch of imperialism. He taught that in its struggle against the forces of socialism the monopoly bourgeoisie would not stop at anything, not even open



armed violence, war. Therefore, in order to resist, the masses should be ready to suppress the violence of reaction with the violence of revolution. Since the imperialist bourgeoisie possesses regular military forces and uses them in its counter-revolutionary aims, the victorious proletariat needs a powerful regular army to protect its Socialist Motherland and wage a revolutionary war against the aggression of imperialists. The oppressed peoples and peoples rising against the domination of the bourgeois for their national liberation are forced to create their armed forces. Thus, armies of the revolutionary classes and national-liberation armies of the oppressed peoples are created.

On the other hand V. I. Lenin stressed the necessity for including in the new army as many as possible of the military specialists of the old army who are devoted to the people and ready to serve it dutifully.

V. I. Lenin proved that there could be no army "in general," but only a concrete army, belonging to a state of a definite type, having a definite character and purpose, serving definite classes and possessing definite combat capabilities. According to his teaching these characteristics determine the social essence of every army.

The army of the socialist state differs basically in its socio-political essence from all previous types of armies. All the armies in the history of mankind which came before the socialist one, i.e. slave-owning, feudal, bourgeois armies, carried out, and the bourgeois ones are still carrying out, two functions: internal and external (by functions of an army we mean its main activities as an armed force). The internal function consists in oppressing the working masses, keeping them in submission to the exploiting minority; the external function, as a rule, consists in capturing foreign territories, enslaving and oppressing other peoples. These are, so to speak, the "eternal" functions of exploiter armies. At the same time the internal function is always the basic one. V. I. Lenin wrote: "Everywhere, in all countries the standing army is used not so much against the external as against the internal enemy. Everywhere the standing army has become the weapon of reaction, the servant of capital in its struggle against labour, the executioner of the people's liberty."

In this connection it is sufficient, for example, to cite the fact that the United States Armed Forces have a special manual of riot suppression. It states that the most effective form of controlling rioters is the fire of weapons of all kinds. Moreover, it recommends to fire not to wound, but to kill and to fire at leaders in the first place.

The reactionary and anti-popular character of the armies of exploiter states was sharply intensified as a result of the passing of capitalism into its highest and last stage — imperialism. In conditions of increasingly acute internal and external contradictions, of the growth of the revolutionary struggle of the working class, of the appearance of the world socialist system and the growth of its international influence, and of the unprecedented spread of the national-liberation movement, the imperialists more and more often use their armed forces or persistently prepare them for such use even in spite of the political détente which is taking shape.

The principal tasks and purposes of the armies of capitalist states are formed in accordance with the general policy of imperialism: preparation for war against the Soviet Union and other socialist countries, suppression of the national-liberation movement in dependent countries, repression of progressive and revolutionary forces both in their own and dependent countries.

At the beginning of its existence the socialist army also performs the two functions, internal and external. But the essence of these functions of the socialist army is quite different from that of the previous types of armies. When socialism comes into existence the exploiter classes are repressed in the interest of strengthening the power of the working people. Under the objective conditions of growth and consolidation of the new society the internal function gradually loses its significance and ceases to exist. The Programme of the CPSU states that from the point of view of the internal conditions the Soviet Union needs no army. Here lies one of the principal differences between the Soviet Army and the armies of bourgeois states, where the internal function, far from dying out, constantly grows.

The necessity for a socialist army to carry out the external function is linked with the existence of imperialism, its aggressive character and the military threat it poses. The aggressive strivings of imperialism and its military blocs, the very nature of the imperialist system — these are the reasons which determine the need of constant care for the security of the country, protection of the socialist gains.

Basing himself upon the theoretical legacy of K. Marx and F. Engels and analysing the contemporary historical conditions, V. I. Lenin enriched Marxism with new conclusions and propositions on the defence of the Socialist Motherland.

V. I. Lenin proceeded from the assumption that in the epoch of imperialism, the socialist revolution — socialism — would triumph not simultaneously and not in most countries at once. Due to the law of uneven economic and political development the victory of socialism is possible in one or several countries. As for the rest of the countries they will stay for a certain period, even quite a long one, on the bourgeois or pre-bourgeois level. Therefore the emerging socialist state will coexist with capitalist states which are hostile to it. In this case the victory of the socialist revolution "is bound to create not only friction, but a direct attempt on the part of the bourgeoisie of other countries to crush the socialist state's victorious proletariat."

V. I. Lenin showed the justice and lawfulness of wars for defence of the Socialist Motherland which may be forced on the victorious proletariat by the imperialist bourgeoisie. He wrote: "Since October 25, 1917, we have been defencists. We are for 'defence of the fatherland'; but that patriotic war which we are moving towards is a war for a socialist fatherland, for socialism as a fatherland, for the Soviet Republic as a contingent of the world army of socialism." Such a war is a continuation of the policy of revolution, overthrow of exploiters, capitalists and landlords, defence of the socialist cause.

Stressing the just and revolutionary nature of wars for defence of the Socialist Motherland, V. I. Lenin noted the popular and international character of the fighting army, its support by the entire people inside the country, the sympathy and help given by the working people of other countries.

V. I. Lenin revealed the content of defence of the Motherland as a complex of economic, social, political, military-organisational and ideological measures. The most important among these were the country's economic build-up to provide the material and technical basis of defence, the moral and political education of the people; formation of the armed forces and strengthening of their combat power; the correct external policy with due regard for the correlation of forces, skilful use of the contradictions within the imperialist camp, work for peaceful coexistence and prevention of a new war.

One of Lenin's greatest services was that he showed the role of the socialist army as a decisive means of protecting the gains of socialism. The concept of the socialist army is one of the foundations of Lenin's teaching on the defence of the Motherland. It became a component part of Lenin's plan of socialist construction. V. I. Lenin developed the political and organisational principles of the socialist army, substantiated and solved practically the problems of defending the country and creating new, truly popular armed forces. At the same time he repeatedly warned that it was not enough merely to create the army, it was necessary to ensure its constant combat readiness and capability in order to prevent a surprise attack and being taken unawares.

V. I. Lenin said that a regular army is "characteristic of the consolidated power of every class, including the proletariat." This statement has been fully supported by reality, it is the basis for military construction in the socialist states.

According to the experience gained, the building of a regular army may be accomplished in combination with elements of a militia system (universal military training of the working people, workers' militia, etc.) or even take the form of a territorial regular system as it was at one time in the USSR. But even in this case professional formations played the decisive role.

Following Lenin's behests the Communist Party reared an army of a new type which embodied in its organisational structure, recruitment, equipment, training and the education of its personnel everything which is best and most powerful in the socialist system.

The Soviet Army and Navy grew and matured together with the country. Successfully putting into practice Lenin's plan of socialist construction, the Communist Party and the Soviet people strengthened the Armed Forces, supplying them with new combat materiel and equipment, educating servicemen in the spirit of Lenin's ideas and behests.

The war against fascist Germany (1941-45) became a severe test for the Soviet people. As in the years of the Civil War (1918-20) Lenin's Party was the organiser and inspirer of the struggle against the invaders. Its activity in the deadly struggle against German fascism, the striking force of world imperialism, was guided by Lenin's ideas on the defence of the Socialist Motherland. The Soviet soldiers fought and defeated the enemy keeping Lenin's great ideals in their hearts. And when thirty-six years ago, in May 1945, the scarlet Banner of Victory rose above the defeated Reichstag it was the Banner of October, the Banner of Lenin.

"Defence of the Socialist Motherland is one of the most important functions of the state, and is the concern of the entire people," states the Constitution of the USSR. "In order to defend the gains of socialism, the peaceful labour of the Soviet people and the sovereignty and territorial integrity of the state the USSR maintains armed forces and has instituted universal military service." In accordance with the Constitution military service in the USSR is an honourable responsibility, and defence of the Motherland is a sacred duty of citizens.

The Soviet Army has been brought up in a spirit of deep devotion to the Socialist Motherland, ideas of socialism and internationalism, friendship between nations. That is where its difference from bourgeois armies lies, and that is the basis of its moral potential.

The moulding of Soviet soldiers as ardent patriots and staunch internationalists proceeds under the influence of the Soviet socialist way of life, purposeful Party-political and ideological work, inseparable unity of the army and the people.

A revolution, as V. I. Lenin taught, must be able to defend itself, must counter the aggressive aspirations of the class enemy with unconquerable military power. That is why socialist society obliges every one of its members to be ready, not in words but by deeds, to fulfil his patriotic duty of defending the Motherland.

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